



The Institution of  
Engineering and Technology

Lancashire and  
Cumbria Network

Newsletter Vol. 8 No. 2  
January 2012



Professional Home for Life for Engineers and Technicians

[www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria)

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# Cover picture

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Welcome to this session. I hope that you find that we have an interesting programme of events covering a wide area of our Network.

Please look at the website as there may be additional events that will be notified by e-mail and shown on the website. I hope that you have found the previous newsletters to your satisfaction and that we keep you informed about the Local Network. If you have any comments please do not hesitate to contact me at [mbell@theiet.org](mailto:mbell@theiet.org) or on **07870 666917**.

It is expected that there will be events and visits were the dates are still to be confirmed as this newsletter is going to press. The details will be notified by e-mail but if you do not use e-mail please let me know at **52 South Park, Lytham, FY8 4QQ** or on **07870 666917** and I will ensure that you receive postal notification.



The Editor

## Next Issue

The next issue of the IET Lancashire and Cumbria Network newsletter will come out in September 2012.

Please send copy to the editor at [mbell@theiet.org](mailto:mbell@theiet.org) by 1 August 2012.

**Disclaimer** The IET Lancashire and Cumbria Network arranges lectures, site visits and other events of professional and general interest to members and their guests. In doing so the IET endorses neither the opinions of speakers nor products and services supplied by them or by their companies.

# CHAIRMAN'S INTRODUCTION



Welcome to 2012 and the second newsletter for our programme of events for the second half of our season. We continue the theme of sustainability with topics covering hydro generation, smart grids, nuclear and hydrogen fuels and water treatment. On the transport side we've topics covering motor bikes from Triumph, a visit to Land Rover and a lecture on the new Blackpool trams so there's plenty to keep us interested through the next few months leading up to the Olympic Games.

Unfortunately we've had to cancel the talk and demonstration of the Nissan Leaf planned for January as the speakers are unavailable but we will try and arrange another similar event later in the year.

I look forward to welcoming you to our events in the coming months and wish you a prosperous and sustainable New Year.



**John Cowburn CEng FIET - Chairman**

# Registration for Events

The Network used the Plus! For Events online registration system to collect pre-registration details for some of the events that were held in the last session. This enables members and non-members to register for events. The network has used it previously for visit registration and it has worked well. There is no need to register for the event but it will help in organizing the event if you do. You can still attend the event without registering. For events which have a meal after the event then it is important to ensure that the booking form is returned to the organizer.

This system has been introduced to help Networks extend their reach and increase their audiences. The online registration system also makes life easier for the Network by:

- Collecting metrics information automatically
- Producing sign-in sheets quickly and easily
- Gathering feedback from attendees after an event

As a result of networks using the online registration system the Network will be able to send emails to non-members as well as members to alert them to Local Network events that are happening in their area. When a non-member registers their interest in attending a Local Network event using the online registration system we get their agreement and their details are stored. Staff is then able to add them to the circulation list for every promotional email that goes out on behalf of the Network in the future.

## Important Notice

To help all to get information on the Network events we will be supporting both a LinkedIn group and Twitter – see below.

## Get LinkedIn to the IET Lancashire & Cumbria Local Network

Come and Join Us on our new LinkedIn Group for the IET Lancashire & Cumbria Local Network. Our group is not just for members but is for all people with an interest in the IET Lancashire & Cumbria LN activities:

- Keep informed of local IET activities in the Lancashire & Cumbria LN.
- Network with other IET members in the region.
- Discuss Engineering and Technology related local topics.
- Find out more about the IET and its local activities.
- Tell us what you think about our local activities!

To join use this link - <http://www.linkedin.com/groups?gid=2179430>

The LinkedIn Group is open to both IET members and non-members. You may need to join LinkedIn (which is completely free) if you are not already registered.

## Follow Us on Twitter!

You can now follow the IET Lancs & Cumbria on Twitter - <http://twitter.com/ietlancscumbria>

# Become more involved with the local IET Community by joining us

Would you like to meet up with fellow-engineers from other organisations?

Do you want to expand your own skills while contributing something to your profession?

Are you interested in attracting the next generation of engineers?

What ideas do you have for your local IET community?

However you want to become involved, e-mail me, Mike Bell [mbell@theiet.org](mailto:mbell@theiet.org), to express your interest. You do not need a lot of spare time – many of our committee members are busy people. The area of involvement and the amount of time you spend is up to you, although we will have specific needs in the following areas over the coming year:

- Joining and being involved with the local technical, young professional and retired members sections
- Publicising events to local IET members and the wider community
- Arranging visits or events
- Recruitment of new members to the IET

We have specialist committees covering:

- Retired Members
- Young Professionals

Helping in these areas would be an excellent way of extending your network of contacts within the professional engineering arena, or simply expanding your personal horizons. Take on as much responsibility as you wish; it is your choice.

IET members of all ages and grades are welcome. We always encourage 'new blood' to refresh our Network and the widest possible range of people will help us to maximise our relevance in the Manchester area.

Email me now at [mbell@theiet.org](mailto:mbell@theiet.org), tel: **07870 666917** without any obligation, telling me where your interest lies. If you wish, send me your telephone number and preferred time if you want to discuss matters on the phone. Alternatively, we could meet at one of our events.

Thanks, and I hope you'll consider joining us as active volunteers. You will be surprised how the amount of effort you put into helping the IET is returned magnified in a variety of other life enhancing ways.



## Engineering Support for Life

IET Connect has a range of services for IET members and their dependants.

We can refer you to a free legal helpline for personal, family and employment concerns.

If you are struggling to meet an unexpected cost, or going through a difficult patch financially, we may also be able to give short term financial assistance. If debts are getting out of hand, we can refer you to independent money advice to help to get back in control.

IET Connect can also assist with a wide range of care costs such as respite to give carers a break, independence and help at home right through to care home fee top up.

For members in need of employment support we offer access to Outplacement Service giving individual guidance through face-to-face sessions as well as online tools to help increase chances of finding suitable employment.

We also offer specialist advice on State benefits and funding and can put you in touch with a wide range of specialist organizations for help with a particular situation.

If you are facing a difficulty, financially or otherwise, then the earlier you contact us the better. Please do get in touch.

For more information on services and funding please contact the IET Connect helpline on **0845 685 0685** or email **[ietconnect@theiet.org](mailto:ietconnect@theiet.org)**

Alternatively you can contact IET Connect's Local Representative Dr Peter Roberts FIET on **0771 8058299** or email **[pe.roberts@theiet.org](mailto:pe.roberts@theiet.org)**

# Become a Mentor with the IET Mentoring Service

Demand for mentors is growing fast. The IET need new mentors throughout the UK to meet demand.

Could you spare one or two hours a month? Would you like to share your knowledge and experience to the benefit of others? If yes, read on!

If you or anyone you know might be interested in this exciting opportunity to encourage, support and guide other engineers at key stages within their careers we would be pleased to hear from you.

Most members applying for a mentor through the Mentoring Service are hoping to achieve Professional Registration (CEng, IEng or EngTech). If you are CEng, IEng or EngTech-registered and would like to support other members towards achieving Professional Registration, contact us today. Full training and support will be provided.

**Web: [www.theiet.org/mentoring](http://www.theiet.org/mentoring)**

**Email: [mentoring@theiet.org](mailto:mentoring@theiet.org)**

**Tel: 01438 767647**

# News

The Network is supporting the new Axis West Cumbria website were details of the multitude of professional bodies, institutions and associations which operate extensive local programmes of events in our West Cumbria. While each organisation promotes its own events there has never before been a single place to find out about all professional events. It is hoped that through the inclusion of event information on this website from a broad range of institutions, that inter-disciplinary networking can be encouraged, opportunities for continuous professional development made available to all, and opportunities to broaden our professional horizons facilitated.

The current contributors include local branches of:

- The Institution of Engineering & Technology
- Royal Society Of Chemistry
- The Institution of Mechanical Engineers
- The Institution of Chemical Engineers
- The Nuclear Institute
- Institution of Civil Engineers
- Institution of Materials, Mining and Minerals
- Institute of Physics
- Association of Project Management
- Chartered Institute of Building

Thanks go to the University of Central Lancashire for sponsoring the initial development costs of getting the website up and running

**Web: [www.axiswestcumbria.org.uk](http://www.axiswestcumbria.org.uk)**

# Be a STEM volunteer and Inspire young people for the benefit of all!

Engineering education and training has been around in one form or another since the big bang (well not quite).

I recently stumbled across an old book from an antiques fair entitled “Engineering Opportunities” from the British Institute of Technology from the 1930’s which I found fascinating and quite funny in parts. This is a paragraph from the foreword by Professor A. M. Low:

“Engineers should be considered of highest rank among the professions. No Engineer need apologise for his calling. He should feel the greatest pride in it, for it may be said that it is the very heart and soul of material progress”.

Apart from use of “He & his” in the text I think that you would agree it conveys a great message to us all. To attract and inspire young people into an Engineering discipline is still a challenge now and as a STEM volunteer you can help.

As an Engineering Professional we are all expected to keep up to date with the enhancements in technology but that’s not all we can do. There are great benefits for the volunteers and their organisation with a connection to a new wave of Engineers

These include:

- enhance your reputation in the local community
- strengthen your communication, planning and presenting skills
- a boost of enthusiasm & pride
- develop the skills, knowledge and understanding of the future workforce
- help dispel myths about the STEM industries
- generate interest in future employment from a pool of local talent

I have been a STEM volunteer for over 10 years now and enjoy the activities that I have been fortunate to be involved in. If you can offer a bit of time to any of the STEM programmes please give it a go, ideally you need CRB clearance and to be linked to a volunteer program. My employer BAESYSTEMS has one; STEM NET, the IET & and the Joint Institutions Group (NW) also have events and programs to get involved in.

There is a plethora of information on the WWW.

If you would like any help and advice for STEM activities please email:

**[frederick.eastham@baesystems.com](mailto:frederick.eastham@baesystems.com)**



The Institution of  
Engineering and Technology

# Lancashire and Cumbria Network Events: January – September 2012

[www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria)

**WEDNESDAY, 25 JANUARY 2012, BARROW, 7.00 FOR 7.30PM**

## **NEW BUILD REACTORS**

**Tim Abrams**

Talk at Forum 28 ,Duke Street, Barrow, LA14 1HH

Contact Ralph Hobson: **01229 583762, [ralph@thehobsons.co.uk](mailto:ralph@thehobsons.co.uk)**

**WEDNESDAY, 8 FEBRUARY 2012, UCLAN PRESTON, 6.00 FOR 6.30PM**

## **HYDROGEN FOR FUEL CELLS**

**Professor Keith Ross, Salford University**

Joint with the IOP

Talk at UCLan Preston, Room 51 Maudland Building, PR1 2HE

Contact Richard Harrison, **01524 733898, [rharriso@btinternet.com](mailto:rharriso@btinternet.com)**

**WEDNESDAY, 15 FEBRUARY 2012, WESTLEIGH CONFERENCE CENTRE, PRESTON, 10.30 FOR 11.00AM**

## **"WHAT HAPPENS TO MY DIRTY WATER?"**

**Robert Tiswell and a colleague from United Utilities**

Talk and Lunch at the Westleigh Conference Centre, Lea Road, Preston, PR4 0RB

Contact Doug Howe, 50 Queensway, Penwortham, Preston PR1 0DT

**01772 743948**

**WEDNESDAY, 7 MARCH 2012, CROOKLANDS HOTEL, KENDAL, 7.00 FOR 7.30PM**

## **HYDRO GOES MARINE: THE NEW FRONTIER FOR HYDRO PLAYERS - TIDAL & WAVE TECHNOLOGY & OPPORTUNITIES**

**Dr George Aggidis, Lancaster University**

Joint with K&DES

Talk at Crooklands Hotel, Nr Kendal, LA7 7NW

Contact Richard Harrison, **01524 733898, [rharriso@btinternet.com](mailto:rharriso@btinternet.com)**

**WEDNESDAY, 25 APRIL 2012, CAVENDISH SUITE, LANCASTER UNIVERSITY, 6.00 FOR 6.30PM**

## **THE FUTURE OF NUCLEAR POWER**

**Prof Malcolm Joyce, Lancaster University**

Talk at Theatre 5, George Fox Building, Lancaster University, LA1 4YW

Contact Richard Harrison, **01524 733898, [rharriso@btinternet.com](mailto:rharriso@btinternet.com)**

**TUESDAY, 8 MAY 2012, UCLAN, PRESTON 5.30-7.00PM**

## **ROUTES TO REGISTRATION PRESENTATION EVENING**

Talk at C&T Building, Room 101, University of Central Lancashire PR1 2EH

Contact Tony Gill, **01200 425911, [tonyandgeorgiagill@btinternet.com](mailto:tonyandgeorgiagill@btinternet.com)**

**WEDNESDAY, 9 MAY 2012, PRESTON, 12.00-8.00PM**

## **ROUTES TO REGISTRATION CLINIC**

Tickled Trout Hotel, Preston New Road, Preston, PR5 0UJ

Contact Tony Gill, **01200 425911, [tonyandgeorgiagill@btinternet.com](mailto:tonyandgeorgiagill@btinternet.com)**  
or to [getregistered@theiet.org](mailto:getregistered@theiet.org) with the heading "Preston - 9 May".

**THURSDAY, 24 MAY 2012, SHAP, 10.30 FOR 11.00AM**

## **ENERGY FROM WATER? - LOCAL SMALL HYDRO-ELECTRIC PLANTS**

**Chris Brett of R & G Parkin, Kendal**

Talk and Lunch at the Shap Wells Hotel, nr Shap CA10 3QU

Contact Ralph Hobson, 5 Old Hall Drive, Ulverston, Cumbria  
LA12 7DG, **01229 583762**

**THURSDAY, 8 MARCH 2012, WHITEHALL COUNTRY CLUB, 6.30 FOR 7.00PM**

**DESIGN AND MANUFACTURE OF CERAMICS**

**Pat Osborne**

Dinner and Talk at Whitehall Country Hotel, Darwin, BB3 2JU  
Contact Jim Hindle, 20 Cowley Crescent, Padiham, Lancs.  
BB12 8SX, 01282 771355

**TUESDAY, 27 MARCH 2012, SWALLOW HOTEL, SAMLESBURY, 6.00 FOR 6.30PM**

**FUTURE DEVELOPMENTS IN SMART GRIDS**

**Simon Brooke, Low Carbon Projects Manager, Electricity North West**  
Talk at Swallow Hotel, Preston New Rd, Samlesbury, Preston, PR5 0UL  
Contact Jim Hindle, 20 Cowley Crescent, Padiham, Lancs.  
BB12 8SX, 01282 771355

**THURSDAY, 12 APRIL 2012, WHITEHAVEN, 6.00 FOR 6.30PM**

**AIR ACCIDENT INVESTIGATION**

**Graham Braithwaite**

Talk at the UCLan Westlakes Campus, Samuel Lindow Building,  
Westlakes Science and Technology Park, Whitehaven, CA24 3JY  
Contact Darren Johnston: 07843 271224, darren@johnston555@googlemail.com

**WEDNESDAY, 18 APRIL 2012, FARRINGTON LODGE, PRESTON 10.30 FOR 11.00AM**

**RECENT DEVELOPMENTS IN CANCER RADIATION TREATMENT**

**Prof Chris Moore, Manchester University**

Talk and Lunch at the Farrington Lodge, Stanifield Lane, Farrington,  
Preston, PR25 4QR  
Contact Brian Flynn, 53 Wilderswood Close, Whittle-le-Woods, Chorley,  
Lancs PR6 7SH. Tel: 01772 330278

**THURSDAY, 24 MAY 2012, LANCASTER UNIVERSITY, 6.00 FOR 6.30PM**

**YOUNGER MEMBERS' PRESENT AROUND THE WORLD COMPETITION**

Competition at Lancaster University, George Fox Building, Lancaster University,  
LA1 4YW

Contact Xiandong Ma, xiandong.ma@lancaster.ac.uk

**WEDNESDAY, 20 JUNE 2012, CROFTERS HOTEL, CABUS, GARSTANG, 6.00 FOR 6.30PM**

**GUEST EVENING: THE BOMBARDIER FLEXITY 2 TRAM  
(NEW BLACKPOOL TRAMS)**

**Speaker from Bombardier**

Talk and Dinner at the Crofters Hotel, Cabus, Garstang, Nr Preston, PR3 1PH  
Contact Mike Bell, mbell@theiet.org, 07870 666917

**TUESDAY, 25 SEPTEMBER 2012, SWALLOW HOTEL, SAMLESBURY, 6.00 FOR 6.30PM**

**"THREATS TO THE EARTH FROM ASTEROIDS AND COMETS" –  
WHAT CAN WE DO?**

**Robin Catchpole, Research Astronomer, Institute of Astronomy, Cambridge**

Talk at Swallow Hotel, Preston New Rd, Samlesbury, Preston, PR5 0UL  
Contact Mike Bell, mbell@theiet.org, 07870 666917

Full details and event synopses are given in the newsletter  
and online at [www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria).

Maps and directions can also be found online.

The events are open to all with all talks being free unless otherwise  
stated Programme Secretary: Barry Lewthwaite: 01539 733767

[jblewthwaite@theiet.org](mailto:jblewthwaite@theiet.org)

# F o r t h c o m i n g   E v e n t s

For latest news on local network activities go to [www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria). It is hoped to run some additional visits and lectures during the year. These will be shown on the website and there will be notification by e-mail. Details of other Institutions events will also be shown on the website.

## New Build Reactors

**Date:** Wednesday 25 January  
**Time:** 7.00 for 7.30pm  
**Speaker:** Prof Tim Abram,  
Manchester University  
**Venue:** Forum 28, Duke Street, Barrow,  
LA14 1HH  
**Organised by:** Joint with PESC & I Mech E  
**Contact:** Ralph Hobson  
01229 583762  
ralph@thehobsons.co.uk

Tim Abram will review the progress that has been made towards building a new generation of nuclear power stations in the UK.

The status of international construction projects for the Areva/EDF EPR and the Westinghouse AP1000 (the two plants most likely to be built) will be discussed, and opportunities for the UK to benefit from international experience will be identified.

### Professor Tim Abram

Prof. Tim Abram holds the Westinghouse Chair in Nuclear Engineering at the University of Manchester's Dalton Nuclear Institute.

He is the Director of the Centre for Nuclear Energy Technology, and Director of the Rolls-Royce Nuclear University Technology Centre

## Hydrogen for Fuel Cells

**Date:** Wednesday 8 February  
**Time:** 6.00 for 6.30pm  
**Speaker:** Prof Keith Ross,  
Salford University  
**Venue:** UCLan, Room MB051,  
Maudland Building, PR4 0RB  
**Contact:** Richard Harrison  
01524 733898  
rharriso@btinternet.com

Hydrogen used in a fuel cell combines with oxygen to make water; not causing climate change by CO<sub>2</sub> emissions. It is also about 60 % efficient compared with internal combustion engines with carbon fuels at about 30% efficiency.

The difficulty is manufacture and storage of hydrogen, particularly for mobile applications.

Professor Ross will take us through these problems and give some indication of the direction to which the solutions to the science and engineering of these problems is going

### Car parking at the University of Central Lancashire

The Lancashire and Cumbria Network organises events at venues which offer free car parking. At UCLan, members and guests attending IET events may park free of charge on university car parks on display of a special flyer on the car dashboard. Flyers are available at all events or by email in advance on request.

For more details please contact Simon Platt, [spplatt@uclan.ac.uk](mailto:spplatt@uclan.ac.uk)

## What happens to my dirty water?

**Date:** Wednesday 15 February  
**Time:** 10.30 for 11.00am  
**Speaker:** Robert Tidswell and a colleague from United Utilities  
**Venue:** Westleigh Conference Centre, Lea Road, Preston, PR4 0RB  
**Organised by:** Retired Members  
**Contact:** Doug Howe  
50 Queensway, Penwortham, Preston PR1 0DT  
01772 743948

Out of sight, out of mind – until we are held up by a traffic queue. Then we realise that United Utilities are carrying out a waste-water improvement scheme! Many projects are currently taking place throughout the North-West that have major impacts on river and sea water quality and our water bills – as well as the traffic flow. Much of the work is underground so it is difficult for us to understand the need or the scale of such projects.

We welcome speakers from United Utilities who will give us an overall view of this work and an appreciation of the engineering problems encountered. In particular we will learn about the major project now underway near the River Ribble in Preston.

The new Westleigh Conference Centre of the University of Central Lancashire is another new venue for us. The original mansion house was built in 1864 by a prominent local mill owner. After many years as a family home it became a Cold War communications centre complete with nuclear bunker! Now carefully restored it is a top conference centre with an impressive all weather feature terrace.

Parking, and disabled facilities are available.

A cup of tea/coffee will be available on arrival from 10.30 am and the talk will commence at 11.00 am. This will be followed by an optional 2-course lunch, costing £20.

Please send all applications on the enclosed flyer before February 8th to Doug Howe, 50 Queensway, Penwortham, Preston PR1 0DT, tel 01772 743948.

## Hydro goes Marine: The New Frontier for Hydro Players - Tidal & Wave Technology & Opportunities

**Date:** Wednesday 7 March  
**Time:** 7.00 for 7.30pm  
**Speaker:** Dr George Aggidis  
Lancaster University  
**Venue:** Crooklands Hotel,  
Nr Kendal, LA7 7NW  
**Organised by:** Joint with K&DES  
**Contact:** Richard Harrison  
01524 733898  
rharriso@btinternet

Tidal and wave marine renewable energy has an essential role to play in response to increasing energy needs and CO2 reduction. It is safe, inexhaustible and mostly predictable, offering security of supply, innovation and economic development.

The UK is at the forefront of the ocean renewable energy industry, through its research and development programmes, test facilities, and offshore experience from oil and gas extraction.

Dr Aggidis will present an up-to-date review of the status of tidal and wave energy technology development with a focus on the use of hydro power technology as a power take off option.

### Dr George A. Aggidis

Dr George A. Aggidis FIMarEST, FEI, FIMechE, FIET is Senior Lecturer in Engineering and Director of Lancaster University Renewable Energy & Fluid Machinery Group, leading the offshore and water renewables generic and applied research activities.

With 25 years industrial experience, from Mather & Platt, to Gilbert Gilkes & Gordon, he has research, design, development and patent contributions in the field of fluid machinery, and renewable energy worldwide.

He is a lead partner on the EPSRC Supergen Marine research consortia (1 & 2), principal investigator on the Joule Centre Hydro Resource Model and the WRASPA Wave Energy Converter, participated in the EU Co-ordinated Action on Ocean Energy and the Carbon Trust Marine Energy Challenge.

## Design and Manufacture of Ceramics

**Date:** Thursday 8th March  
**Time:** 6.30 for 7.00pm  
**Speaker:** Pat Osborne  
**Venue:** Whitehall Country Hotel,  
Darwen, BB3 2JU  
**Organised by:** Joint with BES  
**Contact:** Jim Hindle  
20 Cowley Crescent, Padiham,  
Lancs. BB12 8SX  
01282 771355

Pat will base her talk on the life of Clarice Cliff, who rose through the ranks in the pottery industry to become a well known designer, who's ceramics can be much sought after today.

Pat poses the question, 'Was Clarice Cliff a genius, or just in the right place at the right time?'

Dinner is at 7.00 p.m. and will be followed by the talk; it is possible to attend the talk, which will start at approx 9.00pm without the meal if desired. Booking for the meal is essential. The cost of the meal is £20.00 each. Bookings to Jim Hindle, 20 Cowley Crescent, Padiham, Lancs. BB12 8SX, tel 01282 771355. using the flyer enclosed.

## Future Developments in Smart Grids

**Date:** Tuesday 27 March  
**Time:** 6.00 for 6.30pm  
**Speaker:** Simon Brooke,  
Low Carbon Projects Manager,  
Electricity North West  
**Venue:** Swallow Hotel,  
Samlesbury, PR5 0UL  
**Contact:** Jim Hindle  
20 Cowley Crescent, Padiham,  
Lancs. BB12 8SX  
01282 771355

Simon M Brooke, Electricity North West Limited's Low Carbon Project Manager will provide an overview of the innovation framework for electricity distribution network operators, consider the challenges the low carbon economy provides to distribution network operators and discuss the work being undertaken by the Electricity North West to develop the distribution networks of the future.

## Air Accident Investigation

**Date:** Thursday 12 April  
**Time:** 6.00 for 6.30pm  
**Speaker:** Graham Braithwaite  
**Venue:** UCLan Westlakes Campus,  
Samuel Lindow Building,  
West Lakes Science and Technology  
Park, Whitehaven  
**Contact:** Darren Johnston  
07843 271224  
darrenjohnston555@googlemail.com

Safety lies at the heart of the aviation industry. When an incident or accident occurs, highly skilled accident investigators consider every aspect, not to allocate blame, but to prevent similar accidents happening in the future. It is the combination of hard engineering and scientific skills with an appreciation of the 'softer' aspects of human performance that have allowed accident investigators to continuously improve the safety of air transport. The lecture will consider the role of aircraft accident investigators including how they develop the many skills which are required.

Graham Braithwaite is Professor of Safety and Accident Investigator and Head of the Department of Air Transport at Cranfield University. He holds a PhD in Aviation Safety Management and is Course Director for the world-renowned Aircraft Accident Investigation course which trains investigators for the UK Air Accidents Investigation Branch.

Registration for this event is essential via the following link:

<http://localevents.theiet.org/register.php?event=5eb31c>

or via the IET Website,  
[www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria)  
and book a place.

The Network would like to record their thanks to the following organisations for sponsoring events via donated facilities.

The  
Samuel Lindow  
Foundation



## Recent Developments in Cancer Radiation Treatment

**Date:** Wednesday 18 April  
**Time:** 10.30 for 11.00am  
**Speaker:** Prof Chris Moore,  
Christie NHS Foundation Trust,  
Manchester  
**Venue:** Farington Lodge,  
Stanifield Lane, Farington,  
Preston, PR25 4QR  
**Organised by:** Retired Members  
**Contact:** Brian Flynn  
53 Wilderswood,  
Whittle-le-Woods, Chorley  
PR6 7SH  
01772 330278

Improvements in cancer treatment are continually being sought and are welcomed by all.

Professor Chris Moore of the Medical Physics and Engineering group of the much respected Christie NHS Foundation Trust in Manchester is at the forefront of research and development and we are very pleased that he is coming to bring us up to date with recent developments.

He will tell us about the greatly improved accuracy of high energy treatments, with results that now rival surgery. These improvements are set to accelerate with the arrival of genuinely new technologies for the guidance and application of treatment therapy.

We return to Farington Lodge Hotel for the talk and lunch, a characterful Georgian house set in 3 acres of grounds, close to the intersection of the M6, M61 and M65.

Parking, and disabled facilities are available.

A cup of tea/coffee will be available on arrival from 10.30 am and the talk will commence at 11.00 am. This will be followed by an optional 3-course lunch, costing £20.

All members, their partners and guests, are very welcome.

Please send all applications on the enclosed flyer before April 11th to Brian Flynn, 53 Wilderswood, Whittle-le-Woods, Chorley PR6 7SH, tel 01772 330278.

## The Future of Nuclear Power

**Date:** Wednesday 25 April  
**Time:** 6.00 for 6.30pm  
**Speaker:** Prof Malcolm Joyce,  
Lancaster University  
**Venue:** Theatre 5,  
George Fox Building,  
Lancaster University, LA1 4YW  
**Contact:** Richard Harrison  
01524 733898  
rharriso@btinternet

Following many years of no 'new build' the UK is now facing power shortages in the not too distant future. After the take-over of British Energy by Electricite d' France, several new builds at existing sites were proposed, though not all to be built by E d'F.

Following the earthquake and Tsunami in Japan, nuclear power generation in the UK was reviewed by the senior inspector and no real problems were declared.

Professor Joyce will give his views on the future of nuclear power generally and in the UK in particular.

## Routes to Registration Presentation Evening

**Date:** Tuesday 8 May  
**Time:** 5.30 till 7.00pm  
**Speaker:** Louise Parfrey,  
IET Stevenage  
**Venue:** UCLan, Room CM 101,  
Computing & Technology Building,  
Fylde Road, Preston, PR1 2HE  
**Contact:** Tony Gill  
tonyandgeorgiagill@btinternet.com  
01200 425911

Getting registered as a Professional Engineer is about more than getting letters after your name, Increasingly, employers are placing value on registration as CEng, IEng, Eng Tech and ICT Tech. The IET has recently introduced changes in the process to make things simpler.

If you want to know more about registration and the changes being introduced then we can help. Louise Parfrey from the IET will be making a presentation covering membership, the route to registration (UKSPEC), and how the IET can help you develop your career. The event is aimed at engineers working in large and small companies in Lancashire and Cumbria, students from Engineering Departments but all are welcome.. There will be the opportunity for one-to-one informal interviews with a registration adviser

Pre-registration is not essential however it is possible to register for this event via the following link:

**<http://localevents.theiet.org/register.php?event=5c7fd2>**

or via the IET Website,

**[www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria)**

The presentation will begin at 1730. Light refreshments will be served. Parking is available immediately behind the venue.

For further information on the above events please contact Tony Gill (**[tonyandgeorgiagill@btinternet.com](mailto:tonyandgeorgiagill@btinternet.com)**) or **01200 425911**.

## Routes to Registration Clinic Registration Essential

**Date:** Wednesday 9 May  
**Time:** 12.00 till 8.00pm  
**Venue:** Tickled Trout Hotel,  
Preston New Road, Preston,  
PR5 0UJ  
**Contact:** Tony Gill  
tonyandgeorgiagill@btinternet.com  
01200 425911  
or email to:  
getregistered@theiet.org  
with the heading "Preston - 9 May"  
in the subject line

As a follow-up to the presentations, or simply to support those individuals seeking to develop their careers, for example via CEng, IEng, or Eng Tech we are offering one-to-one advice. The expert from IET HQ will be available, along with local membership and mentoring advisors.

If you are interested in booking an appointment, please send an email to **getregistered@theiet.org** with the heading "Preston - 9 May" in the subject line.

You should provide details of the level of professional registration you wish to apply for, together with a contact telephone number; your membership number (if applicable); and an approximate time for your appointment.

We will do our best to match the requested appointment time.

For further information on the above events please contact Tony Gill (**tonyandgeorgiagill@btinternet.com**) or **01200 425911**.

## Energy from Water? - Local small Hydro-Electric plants

**Date:** Thursday 24 May  
**Time:** 10.30 for 11.00am  
**Speaker:** Chris Brett,  
R G Parkins & Partners, Kendal  
**Venue:** Shap Wells Hotel,  
Shap, Nr Penrith, CA10 3QU  
**Contact:** Ralph Hobson,  
5 Old Hall Drive, Ulverston,  
Cumbria LA12 7DG  
01229 583762

We seem to have plenty of water around at the moment, particularly in the North West!

So how could we all benefit from it? When we think about hydro-generation we usually think of large installations, but improvements are making smaller plants increasingly attractive.

Chris Brett, a Member of our Institution, will tell us about these developments; illustrating his talk with schemes they are involved with in and around The Lakes, taking advantage of different technologies and equipment manufacturers.

We return to The Shap Wells Hotel where we were made very welcome last year. Parking, and disabled facilities are available.

A cup of tea/coffee will be available on arrival from 10.30 am and the talk will commence at 11.00 am. This will be followed by an optional 3-course lunch, costing £17.

All members, their partners and guests, are very welcome.

Please send all applications on the enclosed flyer before 18th May to Ralph Hobson, 5 Old Hall Drive, Ulverston, Cumbria LA12 7DG tel **01229 583762**.

## Present Around the World

### *Young Professionals' Papers Evening*

**Date:** Thursday 24 May  
**Time:** 6.00 for 6.30pm  
**Venue:** Lancaster University,  
George Fox Building  
**Contact:** Xiandong Ma  
xiandong.ma@lancaster.ac.uk

Students and Young Professionals entering the Present Around the World competition are required to give a presentation lasting ten minutes on an engineering subject of choice and should be prepared to answer questions for a further five minutes. Presenters do not have to be current members of the IET.

Subjects covered could be those studied as part of a degree or a project you've been involved in at work. The judging is split 25% technical content, 75% presentation skills - enabling Younger Members at varying levels of study or career to participate.

The prize for the winning presentation is £150, a year's free membership of the IET and the opportunity to compete in national and international competitions.

## Guest Evening: The Bombardier FLEXITY 2 Tram (New Blackpool Trams)

**Date:** Wednesday 20 June  
**Time:** 6.00 for 6.30pm  
**Speaker:** From Bombardier  
**Venue:** Crofters Hotel,  
Cabus, Garstang, Nr Preston,  
PR3 1PH  
**Contact:** Mike Bell  
mbell@theiet.org  
07870 666917

This is our Guest Evening with representation from the IET. The speaker will describe the background to the design of the highly successful FLEXITY platform with a strong reputation for performance and reliability, the FLEXITY 2 tram combines proven features and innovation in a single vehicle. It sets the highest standards in the areas of comfort, safety and environmental protection. Their technical advantages include an improved carbody concept, with better corrosion protection and an enhanced bogie design, the BOMBARDIER FLEXX Urban 3000. The overall vehicle mass is reduced and the BOMBARDIER MITRAC propulsion technology will result in significantly lower energy consumption

The talk is open to all members and guests without charge.

The cost of the meal, which is open to all and held after the talk, is £20.00 per person.

If you wish to attend the lecture only then please register for this event via the following link:

**<http://localevents.theiet.org/register.php?event=a95bc9>**

or via the IET Website

**[www.theiet.org/lancscumbria](http://www.theiet.org/lancscumbria)**

Please send all applications for the meal on the enclosed flyer before 18th June to Michael Bell, 52 South Park, Lytham, Lancs FY8 4QQ  
Tel: **07870 666917** (**[mbell@theiet.org](mailto:mbell@theiet.org)**).

# CONTACTS

## **Chairman**

John Cowburn  
Tel: 01254 704680  
Email: jcowburn@theiet.org

## **Senior Vice-Chairman**

Bill Wilcock  
Tel: 01772 791592  
Email: bill.wilcock@theiet.org

## **Honorary Secretary**

Mike Bell  
Tel: 07870 666917  
Email: mbell@theiet.org

## **Treasurer**

Bevis Mulholland  
Tel: 01257 262683  
Email: bevis@bandrconsulting.com

## **Retired Members' Secretary**

Doug Howe  
Tel: 01772 743948  
Email: dfhowe@theiet.org

## **Programme Secretary**

Barry Lewthwaite  
Tel: 01539 733767  
Email: jblewthwaite@theiet.org

## **IET Connect**

Dr. Peter E Roberts  
Tel: 07718 058299  
Email: pe.roberts@theiet.org

## **Newsletter Editor**

Mike Bell  
Tel: 07870 666917  
Email: mbell@theiet.org

## **South Cumbria Convenor**

Ralph Hobson  
Tel 01229 583762  
Email: ralph@thehobsons.co.uk

## **Younger Members' Contact**

Rich Grant  
Tel: 07769 728722  
Email: rgrant@theiet.org

## **Kendal Convenor**

Richard Harrison  
Tel: 01524 733898  
Email: rharriso@btinternet.com

## **Retired Members' Chairman**

Brian Flynn  
Tel: 01772 330278  
Email: bflynn@theiet.org

## **West Cumbria Convenor**

Darren Johnston  
Tel: 07843 271224  
Email: dsjohnston@theiet.org



**Community  
Relationship Manager**

Deborah McKenzie

PO Box 251  
Sale  
M33 2ZY

Tel: 0161 973 3812  
Skype: NorthEng61

Email: [dmckenzie@theiet.org](mailto:dmckenzie@theiet.org)

**Regional Development  
Manager: Lancashire**

Mary Jane Halstead

Michael Faraday House  
Six Hills Way  
Stevenage  
SG1 2AY

Tel: 07921 230114

Email: [mjhalstead@theiet.org](mailto:mjhalstead@theiet.org)

**Regional Development  
Manager: Cumbria**

Greg Ewing

Michael Faraday House  
Six Hills Way  
Stevenage  
SG1 2AY

Tel: 07725 498129

Email: [gewing@theiet.org](mailto:gewing@theiet.org)