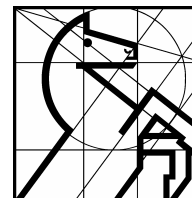


eMech

IMechE West Cumbria e-Newsletter
Edition 1, October 2002



IMechE
West Cumbria

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EDITORIAL

Welcome to the first edition of **eMech**, the electronic Newsletter for the West Cumbria Branch of the IMechE, designed to keep you in touch with what is happening in and around our area - there seems to be such a lot!

We aim to send out an **eMech** every two months to spread the word. Please let us know if you like it and if you have any ideas that we could incorporate. Also – is there anyone else who might be interested? Please feel free to forward **eMech** to anyone else or get them to drop their [email address to me](#) so we can keep in touch.

We have a **MAJOR** presentation coming up - [Ian Fells on Energy for the 21st Century](#) - please don't miss it! With Christmas fast approaching, our Social Event is also gathering steam, so please make sure you book your place now for an evening of [Karting mayhem in Maryport](#).

WE NEED YOUR HELP - please look at the article on [ILOs & ALOs, Schools and Education](#) - communication and education are two vital processes that need your input to make them work.

And finally... don't forget... **GET CHARTERED**! We can help ALL candidates to achieve improved professional status. If you want to progress up the IMechE ladder, then call our Chair, [Adrian Norendal](#).

DON'T JUST SIT THERE, GET IMechE ACTIVE NOW!

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Editor: [Chris George](#), Publicity Officer, IMechE West Cumbria
Tel (Work): 01946 811771

Disclaimer: Any mistakes are those of the Editor alone. Under no circumstances is the Chair responsible...

1. Clean Energy in the 21st Century

The options for a clean, sustainable future – A Major Lecture in West Cumbria

The facts are stark: within the next few years, the UK will become net gas importer as North Sea reserves finally run out, coal technology isn't really working (and we import anyway) and renewable energy solutions are far too small and costly to have serious impact. No-one loves nuclear energy and energy efficiency won't save enough in time to meet the continuing rise in energy demanded by all of us. Plus the continuing pressure to reduce carbon dioxide emissions in an attempt to stabilise the increasingly erratic weather systems – are we doomed??

Against this dramatic scenario, Professor Ian Fells CBE, FEng, FRSE, FInstE, of Newcastle University and Fells Associates, will deliver a major lecture outlining how a mix of renewable and nuclear energy will become the way ahead. Professor Fells is uniquely qualified to comment on fundamental energy issues, and is dedicated to improving public understanding of science via the media. He has made over 400 radio and TV programmes, and has made authoritative contributions to the energy policy debate. He is an influential advisor to many Select Committees and a highly acclaimed commentator on energy, as well as an outstanding public speaker.

Organised by the IMechE West in conjunction with the British Nuclear Engineering Society, the lecture will be held in building B111 at the Sellafield North Gate on Wednesday, October 23rd, starting at 7.00pm. Admission is free and is open to all interested persons.

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2. Karting Mayhem in Maryport

Our Annual Social Event needs YOU to make it work!

With Christmas approaching all too fast, our annual Social Event is also gathering steam.

A practical exercise in determining the effects on coefficient of friction of excess mass and speed, an evening of karting mayhem in Maryport is promised!

With plenty of driving for everyone, just how much fun can you have for just £15.00? But, please hurry – places are limited so make sure you book your place NOW – contact [Andy Williams](#) 01946 771997.

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3. ILOs & ALOs, Schools and Education

The vital link in West Cumbria

Industrial Liaison Officers (ILOs) and Academic Liaison Officers (ALOs) form part of a key network within the IMechE.

Designed to provide points of contact, help and information within industry and academic establishments, it is a priority for us in West Cumbria to develop a comprehensive network to make sure that we can support and promote mechanical engineering.

Being an ILO or ALO is not the most demanding role, but it could be vital for a new candidate to be helped along the pathway to professional qualification. Your help can make a real difference

If you are already a member of the IMechE, we need HELP – YOUR HELP! Can you offer any of the following:

- Become an ILO for your company or immediate industrial estate. Do you know who your ILO is now? If not, why not volunteer – contact our ILO Co-ordinator, [Ron Nixon](#) for details.
- Become an ALO for a school or college. – call ALO Co-ordinator, [George Williams](#)

There are also a number of schemes to promote engineering in schools and colleges, aimed at an age range from 11 upwards. Could you or your company help?

- Become a Mentor to assist young people at school/college conduct and complete a mechanical engineering project.
- Nominate or Sponsor a Project for young persons at school/college to undertake.

Speak to Project Co-ordinator [Alastair Billson](#)

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4. Consultants – Friend or Foe?

Consultants Group active within IMechE – North West Champion appointed

Unkindly, “Consultants” can appear to be a euphemism for expense without accountability, contribution without commitment. However, the Consultants Group operating within the IMechE aims to change that notion.

Allowing only full Chartered members, the Group aims to promote and raise the profile of the Consultant in providing a real pool of expertise to bear on any situation. Within the IMechE nationally, there are some 10,000 members who describe themselves as Consultants, but only 270 have so far registered with the new Group.

Besides offering advice on what it means to be a Consultant, sharing experience of how to become established, a web-based directory is being compiled to allow an easy search against capability, so anyone who wishes to be represented as a Consultant should contact the North West ‘Champion’ of the Consultants Group, Bob Groombridge of Peak Tactics - bgroombridge@peaktactics.com.

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5. Young Members – Get Cracking!

With a new chairman, West Cumbria Young Members can now Get Sorted!

Thanks to the enthusiasm of a group of young engineers, a Young Members group has been formed from the West Cumbria branch, with [Andy Williams](#) as Chair.

Aimed at identifying and meeting the needs of the younger developing engineer, the Young Members are currently considering how to compile an events and activities programme, and also provide support for newly graduated members just entering professional occupations in the area.

The Karting Event ([see above](#)) is an ideal way to introduce yourself to the Group, but if you want to find out more or have any ideas about what YOU want to see, contact [Andy Williams](#) NOW!

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STOP PRESS! Andy Williams has been invited to attend the IMechE Annual Dinner in London in November. The invitation has been extended by the IMechE Regional Chairman, Jon Leigh, who has been very impressed with the level of enthusiasm and activity shown in the West Cumbria area. Watch this space for Andy’s comments on his night out in the capital!

6. Being Moses – A Beacon Of Success!

How the Whitehaven Harbour Regeneration Project parted the seas and saved the Town

The latest event of the IMechE West Cumbria branch was an excellent presentation by Terry Ponting, Chief Executive of the Whitehaven Development Company. Organised in conjunction with the Westlakes Research Institute, the presentation gave a splendid account of the power of engineering in re-shaping natural forces.

The background to the project, which has completely re-vitalised the historic core of the West Cumbrian port of Whitehaven, was fascinating. Whitehaven had suffered from a moribund and decaying harbour for many years, and also from periodic town flooding due to poor drainage from the surrounding landscape, rivers and culverts – the last time as recently as 1997.

An effective engineering solution was clearly necessary, and tenders were invited to produce schemes to provide a lock of permanent water in the harbour, some 42 hectares, together with the inevitable price tag. The schemes suggested that £8 million would be needed. The ingenuity of addressing the various local, regional, national and European fundholders to justify the project against each of their different criteria was clearly evident – from employment and tourism to the Millennium Commission ‘wow’ factor. The final £2 million was found, however, by justifying the scheme as a flood defence system for the town; in the event of warnings about impending heavy downfall, the harbour level can now be lowered to provide a reservoir for water draining from the town! The National Rivers Authority were the last piece of the jigsaw to provide the funding.

Then began the engineering in earnest. The project called for the largest ‘coffer’ dam ever built in a UK harbour, the ‘coffers’ being used to hold sand to weight the structure down – some 22,000 tonnes total weight. The difficulties of dealing with a listed structure built in 1634, presented many challenges, both bureaucratic and technical, from the colour of the grout material to the structural integrity of the very original foundations.

The building of the dam and the provision of the huge hinge and adjustable seal systems for the inner and outer lock gates was beautifully illustrated by a series of slides. From driving the first steel piles into the sea-bed, to the removal of a colossal volume of material to provide the foundations for the huge new concrete structure, every stage of the project was covered. The challenge of the final precision installation of the gates from a massive floating crane to fixed pivots, with each gate weighing over 40 tonnes, was remarkable. The last technical hurdle was the degree to which even the massive new structure ‘settled’ once the temporary protection was removed to reveal the final form that now graces the harbour.

Perhaps the most rewarding aspect of such a project has been to see the difference it has made to the lives of so many people. Over 10,000 gathered for a wonderful open-air concert this summer, flanked by the tall ships that are now able to safely use the harbour. A 150-berth marina is virtually full, and is shortly to be expanded – none of this would have come about if it were not for the engineering courage and determination to re-shape the natural forces that would otherwise have destroyed the old harbour. Such a project must also balance the needs for an effective solution within a properly funded business plan. In this, the Whitehaven harbour project is a beacon of success.



Dr Steve Bradley, General Manager of Westlakes Research Institute (left) and IMechE West Cumbria Chair, Adrian Norendal (right) congratulate Terry Ponting, Chief Executive, Whitehaven Development Company, on an excellent presentation

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DIARY

October	November	December	January
	<i>Committee Meeting</i> Date : Wed 06/11/02 Start Time : 19:30 hrs Venue : Trout Hotel, Cockermouth	<i>Committee Meeting</i> Date : Wed 04/12/02 Start Time : 19:30 hrs Venue : Travellers Rest, Workington	<i>Committee Meeting</i> Date : Wed 08/01/03 Start Time : 19:30 hrs Venue : Lakes College, Workington
<u>LECTURE:</u> Clean and Secure Energy for the 21st Century – Ian Fells Date : 23 October 2002 Time : 19:00 hrs Venue : B111, Sellafield Numbers : < 300 people Booking Req'd : No Refreshments : Yes Organiser : Adrian Norendal Tel : 019467 75700	<u>LECTURE:</u> The London Eye – Alan Mann Date : Wed 20/11/2002 Time : 19:00 hrs Venue : The Barn, Rose Hill Numbers : < 100 people Booking Req'd: No Refreshments : Yes Organiser : David Williamson Tel : 019467 76214	<u>SOCIAL:</u> Indoor Karting Date : Wed 11/12/02 Time : 19:00 – 21:00 hrs Venue : West Coast Karting, Maryport Numbers : 30 people Booking Req'd: Yes Refreshments : No Cost : circa £15 Organiser : Andy Williams Tel : 019467 71997	<u>VISIT:</u> UCB Chemicals, Wigton Date : Mon 20/01/2003 Time : 19:00 hrs Venue : UCB Chemicals, Wigton Numbers : 14 people Booking Req'd: Yes Refreshments : No Organiser : Ron Nixon Tel: 019467 85426
February	March	April	May
<i>Committee Meeting</i> Date : Wed 05/02/03 Time : 19:30 hrs Venue : Trout Hotel, Cockermouth	<i>Committee Meeting</i> Date : Wed 05/03/03 Time : 19:30 hrs Venue : Travellers Rest, Workington	<i>Committee Meeting</i> Date : Wed 23/04/03 Time : 19:30 hrs Venue : Lakes College, Workington	<i>Committee Meeting</i> Date : Wed 07/05/03 Time : 19:30 hrs Venue : Trout Hotel, Cockermouth
<u>VISIT:</u> Pirelli Date : Tues 11/02/03 Venue : Pirelli, Carlisle Time : 19:00 hrs Numbers : 25 people Booking Req'd: Yes Refreshments : Yes Organiser : Alastair Billson Tel : 019467 85731	<u>LECTURE/AGM:</u> The Falkirk Wheel Date : Wed 12/03/03 Time : 19:30 hrs Venue : Hundith Hill, Cockermouth Booking Req'd: Yes Refreshments : Yes Organiser : Mike Edie Tel : 019467 84304	<u>VISIT:</u> Florence Mine Date : Wed 08/04/03 Time : 19:30 hrs Venue : Florence Mine, Egremont Numbers : TBA Booking Req'd: Yes Refreshments : No Organiser : Dave Norton Tel : 019467 76209	<u>LECTURE:</u> The Bluebird Project Date : Wed 14/05/02 Time : 19:30 hrs Venue : The Barn, Rose Hill Numbers : < 100 Booking Req'd: No Refreshments : Yes Organiser : Andy Cumber Tel : 019467 77431

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