



Christmas message from our President

David Westmore



which will enhance the experience for our audiences.

I am pleased to enclose a copy of the Energy Strategy Group's paper on Engineering for Energy, a much anticipated publication which received excellent exposure in the Glasgow Herald (29th Nov). It makes a strong case for the use of engineering methodology in the development of government policy for energy. There is a link to the report from the home page of the IESIS website. Please encourage your contacts to read the report. It is hoped that we can increase awareness about using engineering methods to solve some of the important problems of today.

I have also enclosed Vol 157 of our Journal, an edition which focuses on infrastructure – I hope you enjoy reading it.

I hope you will find something of interest amongst our activities, whether it is a lecture, a visit or reading our publications.

Best wishes for a happy and peaceful festive season.

David M. Westmore.

Thank you for your very great support in the first few months of my presidency. I have been delighted with the numbers that have braved the elements to attend our lectures so far.

We have a great programme for the remainder of the session and are actively working on an equally good programme for next year. Council have made a decision to invest in some high quality audio equipment

The Professional Engineering Working Group

This group continues to promote the importance of professional engineering.

It maintains a website about careers in professional engineering at: www.profeng.org and arranges talks at high schools by prominent engineers and scientists. These talks, arranged by David Watson, have included:

- June 2017 Howie Firth, a mathematical physicist, presented a talk to pupils from east Glasgow schools at Bannerman High on "The Fourth Industrial Revolution".
- September 2017, Ian Callum, Design Director for Jaguar Cars, followed his IESIS Macmillan Lecture by a talk to pupils from south Glasgow high schools at Holyrood Secondary on his experiences as Design Director for Jaguar Cars
- June 2018, Dr Patrick Prosser of the School of Computing Science at Glasgow University, gave a talk on "Algorithms, what's that then?" to pupils from several Glasgow schools at St Andrew's Secondary.

Talks at schools were also given by members of the Group. Iain MacLeod gave talks on professional engineering at the Orkney Science Festival in 2017 and 2018.

We are investigating the possibility of IESIS CPD courses – watch this space!

Members Visits

I am pleased to announce two visits for members in 2019; dates have yet to be finalised but preliminary discussions have been positive. Full details will be released in due course.

Glasgow Museums Repository Store, Nitshill, Glasgow.

During this visit a selection of ship models and artefacts that are not on public display will be shown

Advanced Forming Research Centre, Inchinnan, Paisley.

This visit will allow members a guided tour around the state of the art facilities at this site.



In December 2017 a group of members enjoyed a visit to Howdens site at Inchinnan, Paisley

The Education Fund

The Education Fund provided support for FemEng for their visit to Rwanda in 2018. The FemEng Team managed to visit a total of over 1,300 school children from 8 schools.

The Education Fund has also supported Primary Engineer, publications and student prizes



James Watt Dinner 2018

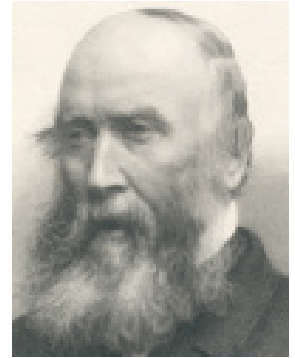
This year's James Watt Dinner was held on Friday 5th Oct in the Radisson Blu Hotel, Glasgow. Reflecting the growing popularity of the event, over 360 people enjoyed a wonderful evening of fine food, good company and light-hearted entertainment, finishing with the much anticipated Scottish Engineering Hall of Fame announcements! The date for the 2019 dinner is 4th October.



Glasgow Lord Provost Eva Bolander presenting Naeem Hussain with his Scottish Engineering Hall of Fame Award – under the watchful eye of James Watt!

David Elder (1785-1866), marine engineer - the "father of marine engineering on the Clyde"

Notable designer and builder of industrial buildings and their power systems, including the premises of Robert Napier's firm. Designer and builder of a succession of engines and boilers for key vessels in the development of ocean-going steam navigation, between the mid-1830s and the early 1850s. His engineering genius was behind the reputation of Robert Napier as 'The Father of Clyde Shipbuilding'.



William Kinninmond Burton (1856-1899), public health engineer, educator and Japan's saviour from cholera

At age 32 Burton accepted the position of Professor of Sanitary Engineering at the Imperial University of Tokyo, where he came to be the Japanese Government's consultant on sanitary conditions and water supply for most major cities including Tokyo and Japanese-occupied Formosa (now Taiwan).

Burton designed Japan's first "skyscraper", the famous Ryounkaku, a 12-storey brick building that towered above Tokyo's low-rise wooden buildings. Concurrently he founded the Photographic Society of Japan.



Victoria Alexandrina Drummond (1894-1978), ship's engineer, pioneering woman engineering role model.

Victoria Drummond was the first woman to go to Sea as a Marine Engineer and first woman to become a Member of the Institute of Marine Engineers now the Institute of Marine Engineering, Science and Technology.

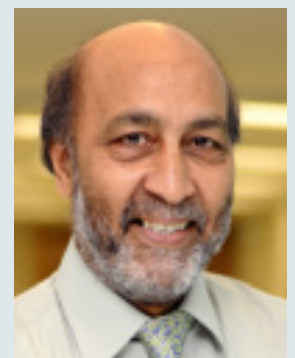
She was made a Member of the British Empire (MBE) the citation reading 'For devotion to duty' with the investiture by King George VI. She was also awarded Lloyds war medal for bravery at sea.



Naeem Hussain (born 1942), civil and structural engineer; designer of Queensferry Crossing bridge.

Naeem was the concept designer and leader for the illustrative design of the 3-tower cable stayed Queensferry Crossing bridge with composite spans of 650m, which he has described as a 'blade of light across the Firth'. It uses stay cables crossed at mid-span to restrain the central tower, and this is the first use in the world of crossed cables at this scale. The design aimed to ensure that it was in scale and a good visual neighbour to the existing road and rail bridges, the latter being a UNESCO World Heritage Site. The bridge was opened by the Queen on 4th September 2017.

Naeem has worked on road and rail bridges, viaducts and railway stations in Australia, New Zealand, China, Korea, Thailand, Indonesia, Vietnam, Myanmar, Maldives, India, Iran, Qatar, South Africa, Turkey, Canada and USA.



Lecture Programme - January to April 2019

Ahead of the wave - The new reality for shipping

Douglas Lang

MD, Anglo Eastern (UK) Ltd

The fundamentals of ship operation have changed little for centuries, but a transition has started and is accelerating. There are developments in areas of manufacturing, technology, operations and environmental concerns. Traditional boundaries are disappearing, manufacturers are moving further downstream, new transformative digital technology has the potential to enable industry wide re-modelling and all the while the "greening" process needs to accelerate. Douglas Lang will tell us where the new reality is heading. Douglas is Group Managing Director (offshore) of Anglo Eastern which offers vessel, crewing and technical consultancy management services. Douglas worked with Denholm, the well-known Glasgow ship management company prior to its merger with Anglo Eastern in 2001. He is a Naval Architect with experience that includes 10 years in research in offshore facilities.

Tuesday 15th January 2019

Joint meeting with IMarEST/RINA

18.00 for 18.30, Room K325, John Anderson Building, Rottenrow East, Glasgow, G4 0NG

Barren to Bountiful - How engineered crop growth is reducing hunger in the world

Dr Keith Dawson

President of the Scottish Society of Crop Research

This lecture will take an optimistic view of developments in the provision of food. Despite growing global population, the proportion of people who are undernourished is significantly declining. Keith Dawson will describe how the use of science and an engineered approach has been able to increase food production and help to address the question of food security.

Tuesday 12th February 2019

Keith is an internationally renowned soil scientist who does work in developing countries to greatly improve their agricultural yield.

18.00 for 18.30, Room 301, McCance Building, Richmond Street, Glasgow, G1 1XQ

Carbon Fibre – the evolution of a new material

John Davidson

Product Director Cygnet Texkimp

John Davidson has been in the carbon fibre industry for over 36 years and was involved in the early years of the industry in the UK. He has been involved in the whole value chain, from polymerisation to recycling of composite parts. He will take us through the story of carbon fibre in the UK from its beginning to looking at future applications and uses.

Tuesday 12th March 2019

18.00 for 18.30, Room 301, McCance Building, Richmond Street, Glasgow, G1 1XQ

The Bloodhound Project - The engineering behind the 1,000mph World Land Speed Record attempt

Mark Chapman

Engineering Director, Bloodhound Programme Ltd.

The Bloodhound Project is a high-technology project, focused around a 1,000mph world land speed record attempt. It aims to inspire the next generation by bringing science, technology, engineering and mathematics to life in an exciting way. In the second quarter of 2019, Bloodhound supersonic car will run for the first time on its specially created race track at Hakskeen Pan, South Africa. Mark Chapman has experience in a variety of engineering projects including many years in aerospace engineering. He joined the Bloodhound Project in 2008

Tuesday 23rd April 2019

AGM 17.45 -18.00

18.00 for 18.30, Room 301, McCance Building, Richmond Street, Glasgow, G1 1XQ

CPD certificates will be available on the evenings



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