



## Message from our President

Dr Andy Pearson

Looking back over the past year it is remarkable to see the ways in which all of our lives have been transformed in a very short period of time. Whether you are employed or retired, the need to get up to speed in double quick time left little room for contemplation of options or any assessment of weighted scores in the way that engineers like to determine such complex decisions. Now, with some experience of remote working, virtual meetings and distance learning under our belts we can reappraise our position. In general I think it has worked well for us. We have been able to hold council meetings remotely to transact the Institution's routine business and our evening meetings, held on-line, have enabled an audience to join us from further afield than would previously have been the case with a lively Q&A session after each meeting. We even managed to host a successful and productive AGM on line, including approval of the historic motion to revert to the original name of the Institution of Engineers in Scotland.

I am particularly grateful to Laura and to the finance team of Stuart and Senga who have handled a heavy workload under difficult circumstances and have been able to keep our activities moving as much as possible. Perhaps the greatest loss this year was the James Watt Dinner at the start of October. This deprived us not only of the funds that the dinner raises each year but also a delightful social occasion mixing with colleagues and friends and the chance to honour the latest inductees to the Scottish Engineering Hall of Fame.

Looking forward to next year brings a sense of anticipation. We hope to see life return, in some sense, to normal although it will not be the same as it was before. In the Institution, as in business generally, this is an opportunity to capture and retain the good things that have emerged from the last challenging months while re-establishing all that we have missed. We have an excellent slate of speakers for our evening meetings, starting with



IES Council member Professor Ian Arbon and in November 2021, delayed a year, the global climate summit COP26 will arrive in Glasgow, so our presentations next year will continue to explore various environmental themes. We anticipate a special celebration at the James Watt Dinner in October, not only making up for lost time but also recognising a double batch of inductees.

Meanwhile I hope that you can all stay safe and healthy over the holidays and that you have a blessed Christmas and a thoroughly successful New Year.

## Reverting back to our original name.....

It has been a long process, which started about two years ago. We carried out lengthy consultations with our members and at this year's AGM the vote was decisively in favour of returning to the original name of the Institution of Engineers in Scotland. Since then we have been in contact with OSCR to seek approval to change and, once that was received, we had to apply to change both names concurrently with Companies House. When that was in place we received our new Certificate of Incorporation and informed OSCR formally that the name of the Institution has now changed. The next step is to formally ask the Lord Lyon for permission to use the crest with the new-old name.

## Our new website!

In tandem with that legal process we have been developing a new website which was launched, under the new banner, on 1st December. There are still some rough edges to the site and areas under development, but we hope that it will provide a fresh, modern view of the institution and will increase our engagement with younger members and people who want to find out more about our engineering heritage. We will now embark on a campaign of informing our fellow engineering institutions and other organisations with which we have close links so that the new website becomes established as our point of contact with the world. You can visit the new website at [www.engineers.scot](http://www.engineers.scot) and we hope that you will send back comments and suggestions so that we can continue this development.

# Gallery of members' photos



We are delighted with the response to the request for photos for our website and hope that you will enjoy browsing through the super photos that we have received. Please keep them coming and in the meantime here are a few examples of engineering in Scotland!

## Membership Matters

Thank you to everyone who has replied to the letter about the adjustment of membership grades and the realignment of the fee structure. As emphasised in the letter, your fees for this year are not different to last year unless you choose to make an additional donation to the Institution either for general funds or for a special purpose. Thank you too to the Fellows and Members who have indicated that they will make an additional donation. Your support in these difficult times is greatly appreciated.

The letter raised several questions for some members and I suspect that many more will be thinking the same things or perhaps have completely separate questions. I encourage you to take a moment to reply to Laura's email if you haven't already done so. I would far rather hear from you, particularly if you are concerned about something or you want to emphasise a point, rather than just letting the matter pass without comment.

One member was concerned to note that we appeared to be less welcoming to professionals in the engineering sector who did not have an engineering qualification or recognition from the Engineering Council as a Chartered Engineer. It's unfortunate that this impression has been created because the intent of the adjustment was that these people, typically in senior positions within engineering companies or universities, would still be very welcome as Fellows, with full voting rights, as before.

Their path to Fellowship would be as a direct appointment if their application was later in their career, or as an Associate if they applied earlier, but given the high proportion of our membership who are Fellows the former path seems more likely. Another question asked whether membership would be revoked if the member had been Chartered but allowed this to lapse after retirement. The answer is emphatically that this is not the case. The status of Chartered Engineer is used by the membership committee as an indicator of a level of seniority, competence, achievement and respect which shows that a candidate is suitable, rather than being an access pass. Every membership application is considered on its merits, taking these and other factors into account.

The wording of the new website in the membership section was a bit "rough and ready" so this has been edited to make it clearer. Please get in touch if you spot any other issues or have other concerns and we will address them as quickly and efficiently as we can.

Please note that membership subscription payments for the session 2020-2021 are now due, having been confirmed at the AGM in August. If you have already paid, thank you. If not, please make arrangements as soon as possible, remembering to advise Laura if you choose to make an additional donation. Thank you for your support.

It is with regret that we inform you that Mr Fred Walker passed away in November. Fred has been a long-time member of the Institution and will be fondly remembered by all who knew him. The short article below was inspired by a conversation earlier this year with Fred. We hope to include an obituary for Fred in a future publication.

## Kirk ships

The tradition of displaying model ships in churches stems from the Middle Ages and appears to have been common throughout Europe. The model ships are thought to have been gifted in thanks for safe delivery from a perilous journey or as a reminder to the congregation of those risking their lives at sea.

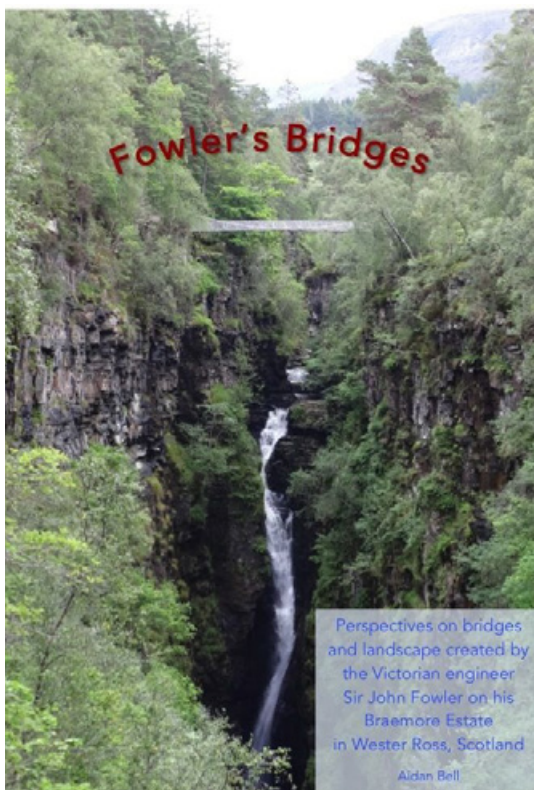
There are many places where you can see kirk ships in Scotland, a few examples have been listed below.

In 2004, the Society of Friends was bequeathed a ship model by the last Sheriff Stanley Gimson with the request that the two-masted brig be hung in Glasgow Cathedral in the manner of a votive ship as a reminder of the Clyde's tradition of shipbuilding. It hangs in the St Nicholas Chapel at the east end of the Lower Church, – St Nicholas being the Patron Saint of Sailors. (see image, ref - <https://www.glasgowcathedral.org/votive-ship/>)

St Monans church has origins going back to 875 AD when the relics of St Monan were buried in a shrine on this spot. The present church was built at the behest of King David II by Sir William Dishington in 1370. Votive models of ships, including an early nineteenth-century ship, hang from the ceiling. Other kirk ships can be found in Portlethan Parish Church (the William Law), Ayr Auld Kirk (the Arethusa) and Eyemouth St Ebba's Church. Three kirk ships are also on display in Aberdeen Maritime Museum



## 'Fowler's Bridges: Perspectives On Bridges And Landscape Created By The Victorian Engineer Sir John Fowler On His Braemore Estate In Wester Ross, Scotland.' by Aiden Bell



You may be interested in a book which has recently been published about the life of Sir John Fowler

The Victorian engineers Sir John Fowler and Sir Benjamin Baker are synonymous with their crowning achievement, the cantilevered Forth Bridge in Scotland. However, Fowler and his friend and business partner Baker also transformed Sir John's holiday retreat by building distinctive miniature bridges at his Highland estate of Braemore near Ullapool in Wester Ross, Scotland, between 1865 and 1897. Along with similar estates at Sir William Armstrong's Craggside and Isambard Kingdom Brunel's Watcombe, Fowler's Braemore represents an example of how Victorian engineers applied their skill and ingenuity to develop concepts of designed landscapes by creating an 'engineered landscape', by capturing water to produce hydro-electricity and creating forests and vistas for sport and pleasure.

From the big bridges of their professional careers to the little bridges at Braemore, this book examines how Fowler and Baker created elegant yet functional features of a Victorian Highland landscape. The significance of these bridges is explored through three themes: how they fit into the wider context of 19th century civil engineering, how engineering principles were applied to miniature bridge design by understanding conceptually how bridges work as a structure, and why the bridges were placed where they were in the landscape. Fowler's bridges represent the distinct genre of Victorian miniature bridge building, with the most famous of the little bridges at Braemore being the suspension bridge at Corrieshalloch Gorge.

Copies of the Rankine Songbook are still available! – please send any enquiries to Laura

# Lecture Programme for 2020-2021

## 2021 Lectures



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A MULTI-DISCIPLINARY  
ENGINEERING INSTITUTION

### Joint meeting with IMarEST

#### **Dealing with plastic waste sustainably**

**Prof Ian Arbon**, Senior Partner, Engineered Solutions Ltd

**Tuesday 12th January 2021, online 18.30pm**

Over the past few years, the issue of 'plastic waste' has become a dominating concern in the UK. During the Covid-19 crisis some of the small improvements that had been made in the past few years have actually been reversed! This lecture starts from the standpoint that there is no clear definition of the term 'plastic' and that there are no 'silver bullet' solutions to the problem; however, our traditional (but unsustainable) solution of sending our plastic waste to the Far East, while claiming to have recycled it in the UK, is no longer an option available to us. The problem needs a reasoned, engineered and/or ethical response. This lecture explores what can we now do that is both sustainable and responsible.

### **UN Sustainable Development Goal No 6, Clean Water and Sanitation**

**Prof Bill Sloan**, Professor of Environmental Engineering, University of Glasgow

**Tuesday 9th February 2021, online 18.30pm**

Substantial progress has been made towards sustainable development goal 6: delivering clean water and sanitation to all. However, there is still a long way to go; 784 million people do not have access to clean water and 2.5 billion live without improved sanitation. The inertia in delivering water and sanitation solutions is compounded by 31% of rural communities having no access to electricity. Filling the gap in provision with Western-style energy and resource-intensive infrastructure, even if it were technically possible, would be extremely costly for developing economies and would increase global carbon emissions by 2%. This presentation will discuss the barriers to progress and new approaches to water treatment and sanitation emerging from the developing world that give cause for optimism.

### **Nanotechnology**

**Prof Doug Paul**, Professor of Semiconductor Devices, University of Glasgow

**Tuesday 9th March 2021, online 18.30pm**

Nanotechnology is now a technology used in many items that are around the home and used in everyday life. This talk will present some of the present areas of nanotechnology and in particular quantum technologies that are being researched to help improve communications and the internet, to improve the resilience of navigation and through magnetic imaging of the brain aid the understanding and treatment of dementia. The potential impacts to society will be discussed along with the timescales for the technologies to become available. The talk will also highlight many of the companies working in Scotland and the UK that are delivering nanotechnology products to users around the globe.

### **Why Civil Society Needs Engineers - especially Naval Architects, Marine & Ocean Engineers!**

**Mr Peter Noble**, President and Principal Advisor, Noble Associates Inc.

**Tuesday 20th April 2021, online 18.30pm**

As can be deduced from the title of his presentation Peter has a passion for promoting a better understanding of how engineering and technology are fundamental to developing and supporting civil society. In the developed world we live generally, safe, comfortable and rewarding lives due to the availability of technology, while in the developing world engineering has dramatically improved the overall progress of humanity, and is improving both life expectancy and quality of life.

### **AGM – details to be confirmed**

Please visit [www.engineers.scot](http://www.engineers.scot) for further information and registration details

CPD certificates will be available on application



Contact: IES, Scottish Engineering Suite, 105 West George Street, Glasgow, G2 1QL.  
Tel 0141 248 3721. Email [secretary@engineers.scot](mailto:secretary@engineers.scot) Website: [www.engineers.scot](http://www.engineers.scot)