



The Institution of
Engineering and Technology

Lancashire and Cumbria Network



Programme Card

January 2024

Free to attend - all welcome

Professional Home for Life[®] for Engineers and Technicians

Website: <http://www.theiet.org/lancscumbria>

Chairman's Introduction



Mike Foy
Chairman

Dear Lancashire and Cumbria Members,

The days are short and the nights long but hopefully there is an upcoming event that will alleviate some of the winter blues in our 2024 Winter programme.

Hello and welcome to our next programme of events and newsletter. The last few months have been busy at a local level across Lancashire and Cumbria ranging from a variety of talks to an event encouraging our next generation of engineers hosted by the early career members of the West Cumbria branch. There is a news article contained in the programme on the event so please take time to read and take inspiration from some of our volunteers and the work they do for the next generation.

One event I am particularly looking forward to in this programme is on the eponymous Concorde that demonstrated collaborative engineering at its best in developing and building the worlds first supersonic passenger aeroplane. It's such popular topic that there are two on one day so take your pick of the one that suits you but one for the diary so book in plenty of time.

We are also revitalising our membership clinics for professional registration advice and help, and, in this programme, it will be held in the Preston area, but all are welcome from across the region. If you are thinking about professional registration in any of the categories, EngTech, IEng or CEng but not sure where to start or have no immediate support network where you work it's worth popping in.

Lastly but by no means least I would like to mention the importance of Foothold to many of our members and kin who have been helped by our benevolent fund through some difficult times. It is no longer an option to contribute at the point when you pay your fees but please look up myfoothold.org to find out how you can continue to contribute. I would also like to point out that Foothold hold a series of very interesting webinars on various topics but to participate you have to opt-in so again details of how will be found on the page myfoothold.org.

I hope you can attend and enjoy some of the events and support the volunteers working with our communities. We try to make sure these are publicised on the various social media platforms such as LinkedIn, Facebook, X formerly known as Twitter etc, so keep an eye out.

Mike Foy
Chairman

Retired Members' Chairman's Report

The Retired members section has run three successful lectures this year on topics ranging from Bluebird K7 to B4RN (Broadband for rural networks). Our next two talks are on Concorde and the Devil's porridge Museum (tells the story of HM Factory Gretna, the greatest munitions factory on earth in World War One). The talks are held in a variety of locations in Lancashire and Cumbria. They begin at 11am and are followed by an optional lunch. We would love to see new faces – the talks are not just for retirees!

Suzanne Flynn

The Institution of Engineering and Technology - Lancashire and Cumbria Network

Lecture Programme January 2024 - July 2024

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Wednesday 10th January 19:30	Forensic Science as a Career - With Case Study (Part 2)	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Isobel Colclough Forensic Investigator	Abridging a 25-year career in Forensic Investigation from CSI to Academic to International Forensic Trainer and 'OFSED' for CSI Units and some of the experiences along the way, Isobel has taken an alternative route to the typical CSI career path and encountered some interesting casework, training courses and locations along the way. Working in South Manchester during the gang troubles of the early 2000's, International Investigations training in the Hague and training delivery in Libya are a few examples to be presented alongside an overview of changes in culture in Crime Scene Investigation since the introduction of the requirement to achieve accreditation to international standards.
Thursday 18th January 19:30	Tidal Energy and Morecambe Bay	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Professor George Aggidis Lancaster University	Professor George Aggidis has been a long supporter of the potential to exploit tidal energy in Morecambe Bay and he will address the opportunity, and the benefits that a scheme could bring. We welcome George back to speak to us on an untapped Green energy resource. George is Professor and Head of Energy Engineering in the Engineering Department of the Faculty of Science and Technology at Lancaster University, UK, and Director of the Lancaster University Renewable Energy Group & Fluid Machinery Group.
Tuesday 23rd January 18:45	Technical Visit: BAE Systems Factory of the Future - Part of FalconWorks™	BAE Systems, Warton PR4 1AX	Organised by: IET Contact: Bill Wilcock (bill.wilcock@ietvolunteer.org)	Visit Hosted by: Steve Wilcock BEng(Hons) MIET Head of Technology Environments	In order to meet the technical, affordability and timescale challenges of the Tempest and Future Combat Air Systems (FCAS) Programmes, BAE Systems are developing transformational ways of working. As one of its Technology Environments, Factory of the Future provides a collaborative environment, representative of BAE Systems production facilities, in which to develop and integrate technology and demonstrate new capabilities. The visit will provide an overview of the Tempest and FCAS Programmes and their associated demands and challenges, as well as showcasing the novel approaches and assembly methods they are developing for their next generation of products. Please note that registration is required.
Thursday 25th January 19:00	Wings Over Windermere	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	Ian Gee	Waterbird is the only replica seaplane of its era anywhere in the world. Apart from a modern engine it faithfully recreates the original Waterbird of 1911. Work on the replica began in 2009 & it flew in 2018. This talk will detail the challenges faced in recreating a fully workable Waterbird, it will be the story of 2 seaplanes one from 1911 and one of today.
Wednesday 7th February 19:30	Living On The Moon, Off The Moon	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Dr Kathryn Hadler Imperial College, London and Director of European Space Resources Innovation Centre (ESRIC)	As space exploration advances, the ability to utilise local resources becomes increasingly important. Transporting materials from Earth to the Moon is incredibly expensive, making it crucial for future lunar inhabitants to rely on locally sourced materials rather than on resupply missions from Earth. Fortunately, the Moon offers a wide range of resources, however determining how best to extract and use them presents a unique challenge. In this talk, we will explore potential solutions for utilising lunar resources in the near future.
Wednesday 7th February 18:30	Smart Meters - Why Do 10% Not Work?	The Sablesbury Hotel Preston New Road Sablesbury Preston PR5 0UL	Organised by: IET Contact: Bill Wilcock (bill.wilcock@ietvolunteer.org)	John Cowburn Director of Smart Energy Networks Ltd.	The government has mandated that every household in Great Britain will be offered a smart meter by 2020. The talk will cover what led to this decision and what benefits the customer gain by having them fitted. It will cover the technology employed and why there are two generations of meter, why customers cannot switch energy supplier with the first generation and why the second generation is years behind schedule. It will also cover the issues of data privacy and cyber security, the risks to critical national infrastructure associated with the roll out of the first generation smart meters and how these issues have been mitigated in other countries.
Thursday 15th February 19:30	Experiences of Naval Shipbuilding in Canada	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Ian Tippins Consultant to BAE Systems	Neil Tippins will reveal some of his experiences working for Irving Shipbuilding in Halifax, Nova Scotia. The yard is building the warships for the Canadian Navy under the National Shipbuilding Procurement Strategy.

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Lecture Programme January 2024 - July 2024

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Thursday 22nd February 11:00	Concorde	The Villa Wrea Green Kirkham PR4 2PE	Organised by: IET Retired Members Contact: Suzanne Flynn (suzanne.flynn@ietvolunteer.org)	Gordon Bartley	Gordon Bartley has had a lifetime career in the aeronautical industry. He was invited to host the former British Airways Concorde located at Manchester Airport. This post he held for ten years. He has a detailed knowledge of the history of this unique aircraft and will cover the history from the early consideration of developing a British supersonic airliner in the 1950's through the first commercial flights by Concorde in 1976 to the tragic Concorde crash whilst taking off from Paris in July 2000 and its retirement in 2003. There is an optional lunch (£20pp) after the lecture at 12:30. Booking for this is essential using the form available on the website.
Thursday 22nd February 19:00	The Story of Concorde	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	Bill Wood	Concorde was the first supersonic passenger carrying airplane, built jointly by manufacturers in France and Great Britain. The speaker was an aerodynamicist working for BAC, and will describe the design and development of the narrow fuselage and original delta wing.
Wednesday 28th February 19:30	A595 Grizebeck Road Improvement	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Mark Robinson Workstream Project Manager, Capital Programme, Westmorland and Furness Council	The talk will preview the eagerly awaited construction phase of this highways project at Grizebeck. It consists of a new 1.4 km single carriageway road between Chapels and Grizebeck on the A595. The route runs to the east of the existing A595, past properties at Dove Bank and Dove Ford Farm, before crossing the existing A595 and then forming a new junction with the A595/A5092 to the west of the existing junction. Improving the highway network on the A595 is critical to support the economic growth of West and South Cumbria and the scheme will also ensure that the A595 can function adequately as a diversion route for the A590.
Wednesday 13th March 19:30	Nuclear-Powered Hydrogen Production	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Prof. Tim Abram University of Manchester	Synopsis not available. This will be published with the event details on EngX and our website in due course.
Thursday 21st March 19:30	Hydrogen Facility at Kimberly Clark	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Eric Adams Project Director (Hydrogen) Carlton Power	Carlton Power will describe the project to generate hydrogen, using renewable power sources, for use in the paper mills in hydrogen ready boilers at Kimberly Clarke in Barrow. This project has received Government support and is the first of three planned at different sites.
Thursday 28th March 19:00	B4RN - The Network with Community at its Core	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	Tom Rigg COO B4RN Dave Rogerson	B4RN's COO - Tom Rigg, and local volunteer Dave Rogerson will take you through the journey of building & operating a full fibre network in deep rural locations to deliver the best internet service in the country, working shoulder to shoulder with, and for, rural communities, to realise the enduring benefits of greater resilience and connectivity. And will discuss challenges, solutions, and examples of local deployments such as Levens, Crook, New Hutton, and more.
Wednesday 10th April 19:30	The Last Battlewagons: The King George V Class in Combat 1940-45	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Dr Scott M Lindgren Naval Historian	The five King George V-class vessels formed the last full class of battleships built for the Royal Navy, and the most modern available to the service during the Second World War. An often-underrated type, compromised by restrictions imposed by the London Naval Treaties, they were in fact capable battlewagons, incorporating advanced design features and saw heavy fighting in all maritime theatres of the conflict. This talk provides a background to their design and features, and their operational histories including their roles as flagships and major actions.
Thursday 18th April 19:30	Networking Evening Featuring a talk '60 years of projects in Air, Land and Sea'	Preston Marriott Hotel Garstang Road Broughton Preston PR3 5JB	Organised by: IET Contact: Mike Foy (michael.foy@ietvolunteer.org)	George Seyfang BSc Retired Aerodynamicist BAE Systems	This evening will provide an opportunity over a drink and light bites for members, partners and friends, plus guests from local industry and academia, to meet and chat about the many activities and opportunities in the region. The initial meet and greet, will be followed by an entertaining half-hour talk by the guest speaker George Seyfang
Thursday 18th April 19:30	MV Sir John Fisher	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Ian Salter James Fisher Shipping Services	Motor Vessel Sir John Fisher is the first dual fuel ship in the James Fisher fleet. This allows her carbon emissions to be reduced by 45%. The talk will include a description of the ship, its build and in-service performance over her first year.
Thursday 18th April 19:00	Commissioning of the Dinorwig Pump Storage Scheme	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	Geoff Martell	Geoff Martell was the Commissioning Engineer for the pump storage scheme in Snowdonia, in charge of putting it to work for the first time. The talk will include slides of the construction and development of the scheme as well as details of its commissioning and day to day operation.

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Wednesday 15th May 14:00 to 19:00 (by appointment)	Membership Clinic	Macdonald Tickled Trout Hotel Preston New Rd Samlesbury Preston PR5 0UJ	Organised by: IET Contact: Peter Roberts pe.roberts@ietvolunteer.org 07718058299.	IET Professional Registration Advisors	For individuals seeking to develop their careers, for example via CEng, IEng, or Eng Tech we are offering one-to-one advice. Membership advisors will be available for 1-1 discussions. If you are interested in booking an appointment, please send an email to rssu@theiet.org to book a slot (booking is essential). We are envisaging the event will be from 2pm to 7pm at the Tickled Trout in Preston, PR5 0UJ. 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 any preferred times for your appointment. For individuals seeking to develop their careers, for example via CEng, IEng, or Eng Tech we are offering one-to-one advice. The experts 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 rssu@theiet.org with the heading "Preston - 15 May" in the subject line (booking is essential). 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.
Wednesday 15th May 18:30	A Day In The Life Of A Rail Inspector	The Samlesbury Hotel Preston New Road Samlesbury Preston PR5 0UL	Organised by: IET Contact: Bill Wilcock (bill.wilcock@ietvolunteer.org)	Neil Gove HM Inspector of Rail Accidents	The talk will explain the role and workings of the RAIB, the UK's independent accident investigator for railways and tramways. It will then consider some recent investigations to illustrate the range of work the Branch undertakes in order to understand the causes of accidents and to learn safety lessons from them.
Thursday 16th May 11:00	Devil's Porridge	Shap Wells Hotel Shap Nr Penrith CA10 3QU	Organised by: IET Retired Members Contact: Suzanne Flynn (suzanne.flynn@ietvolunteer.org)	John Anstey Trustee, Eastgriggs & Gretna Heritage Group	<p>Early in 1915, in response to a growing shortage of munitions, the government commissioned a huge new cordite factory on the Anglo-Scottish border. The 9 mile long site was remote, thinly populated and with little infrastructure. In August, 10,000 Irish Navvies started arriving, building their own timber houses before starting construction of the biggest factory in the world. Work also started on 2 new Garden Townships to house the 8,000 managers and 12,000, mostly women, workers coming to "stir the Devil's Porridge". Astonishingly, within 12 months, cordite was being produced and in May 1917 the King and Queen came to celebrate production reaching 800 tons a week which was as much as all the other Royal Ordinance Factories combined.</p> <p>HM Factory Gretna transformed our region and the story told by the Devil's Porridge Museum sheds light on an overlooked aspect of the War. The talk will cover the use of cordite, the building of the factory and of Eastgriggs and Gretna, the role of women in the production process and the government response to perceived excessive drinking by workers at the factory.</p> <p>There is an optional lunch (£20pp) after the lecture at 12:30. Booking for this is essential using the form available on the website.</p>

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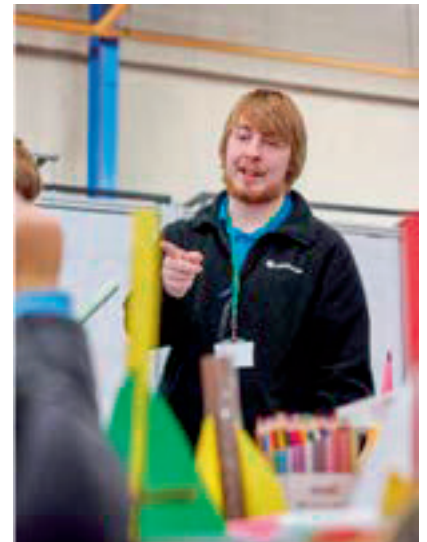
Care Day 2023 – Sellafield Centre of Excellence



On November 11th, Sellafield Ltd's Centre of Excellence opened its doors to welcome 45 children in support of Care Day 2023. This is the world's biggest annual celebration of children who have been, or who currently are living in care. Supported by 5 IET West Cumbria representatives, children had the opportunity to engage in a series of group games and one-on-one sessions, tailored to their individual interests and needs.

Children in care have usually experienced hardship in their lives before coming into care and have often been subjected to various forms of neglect and as a result have difficulty in forming new relationships. However, a caring and safe environment can help to improve the young person's chance of success and can help them to overcome their often-troubling early life experiences. The event this year aimed to foster a sense of curiosity and enthusiasm for the field of engineering, while providing a safe and welcoming environment for the children to explore their potential.

An all-round favourite for this year was the rocket building session lead by Joseph Rossall. Children were guided whilst building their rockets out of card and tape before seeing how far they could be launched across the carpark outside. It was great to see such a wide range of ages starting to apply concepts such as aerodynamics into their designs, linking a fun activity back to the amazing world of STEM.



The team really enjoyed supporting the day and we are looking forward to supporting the event again next year!

Report By Rachel Gleaves



Move more in 2024! 16th January 2024, 12.00 - 13.00



Explore the small steps we can all take to improve our fitness with speaker, Leigh-Anne Cruickshank.

Find out more and register here:

<https://www.myfoothold.org/how-can-we-help-you/webinars/move-more-in-2024/>

Previous webinars are available at:

<https://www.myfoothold.org/how-can-we-help-you/webinars/>

Join Wales' largest multi-charity fundraising event and raise funds for Foothold

Pledge to run the Cardiff Half – one of the largest road races in Europe – for Foothold, and raise vital, life-changing money for engineers in need.

This exciting, popular event will take you past some of the most breath-taking scenery Cardiff has to offer. You'll also get up close to some of the city's iconic landmarks including Cardiff Castle, the Principality Stadium, Civic Centre and the stunning Cardiff Bay – all whilst being cheered on by thousands of spectators!

Date: 6th Oct 2024

Location: Cardiff

Register by: 7 August 2024

Register today and help us make a real difference to the lives of engineers and their families around the world.

Register here: <https://runforcharity.com/foothold/cardiff-half-marathon/register>

Make a direct donation: <https://www.myfoothold.org/donate-direct/>

Visit our website: www.myfoothold.org

Join our Wellbeing Hub: <https://www.myfoothold.org/wellbeinghub/>

Foothold exists to ensure that no engineer or their family has to face life's challenges alone. If you're struggling with money, mental health, care needs, legal issues or your working life, we may be able to support you. Get in touch with our team today.

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The Institution of Engineering and Technology

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Social Media

Twitter: @ietlancscumbria **LinkedIn:** www.linkedin.com/groups/2179430

Local Network Affiliated Organisations

The Lancashire & Cumbria network covers a vast area with diverse interests. We attempt to include the majority of talks organised by the organisations listed below in our IET and LinkedIn pages; however some events are posted only to the local organisation's events pages.

Below is a selection of the local subgroups and contacts:

Barrow and District Association of Engineers - www.bdae.org.uk

IMechE North-West - <https://nearyou.imeche.org/near-you/UK/North-Western>

Kendal and District Engineering Society -

www.facebook.com/photo/?fbid=584696080327998&set=gm.550713739774041

Professional Engineers South Cumbria - <https://pesc.org.uk>

Networking Evening – 18th April

All Members Are Invited

60 Years of Projects for Land, Air & Sea

George Seyfang BSc

Formerly Principal Concepts Engineer – BAE Systems

