

Lancashire and Cumbria Network



Programme

September 2024

Free to attend - all welcome

Professional Home for Life® for Engineers and Technicians

Website: https://engx.theiet.org/local-networks/nw1

Chairman's Introduction

This being my first message as the new chair of the Lancashire and Cumbria local network I have to say that I am honoured with being entrusted in taking up this position having been Vice Chair for the last two years.

I would like to express my thanks and I am sure on behalf of all the local network members (of which there are nearly 3500) to our out-going Chair, Mike Foy.

Note the website to visit to find out more about Lancs and Cumbria Network is engx.theiet.org/local-networks/nw1

On the back of the programme card there is a list of contact names who support our Local Network and please note there have been updates since our winter/spring programme card.

As can be seen there is a wide variety of lectures on offer this Autumn and in the run up to Christmas across our Local Network; from the Eden North project to the possibility of alien life, to the Thirlmire Aqueduct.

If you do plan to attend any of the events please register beforehand so you can be notified of any last minute changes.

Nigel Whitaker - Chairman

Retired Members' Section Chairman's Report

The Retired members section has run three successful lectures this year on topics ranging from B4RN (Broadband for rural networks) to the Devil's Porridge Museum (tells the story of HM Factory Gretna, the greatest munitions factory on earth in World War One). This autumn we have organized talks on 'Small Modular Reactors' and the 'Eden North Project'. We have a new venue: The Glendower Hotel, Lytham St Annes. Four more talks are planned for 2025.

The talks are held in a variety of locations in Lancashire and Cumbria. They begin at 1030 am and are followed by an optional lunch. We would love to see new faces and friends – the talks are attended by a variety of people not just retirees!

Suzanne - Retired Members' Chairman

The Institution of Engineering and Technology - Lancashire and Cumbria Network Lecture Programme September 2024 - December 2024

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Tuesday 10th September 18:30	Finding Life Beyond Our Solar System With The James Webb Space Telescope	The Samlesbury Hotel Preston New Road Samlesbury Preston PR5 OUL	Organised by: IET Contact: Mike Bell (Michael.Bell@ietvolunteer.org)	Dr Robin Catchpole Institute of Astronomy Cambridge University	Is there life beyond planet Earth, is one of the great questions of all time. In the last twenty years we have come a long way towards answering this question. We find living organisms in extreme environments on Earth, evidence for possible habitats in unexpected places in our solar system and over 5000 planets orbiting other stars. By careful observation we know something about the physical properties of these planets, whether they are dense and rocky like our Earth or gas giants like Jupiter. The James Webb Telescope is opening a new dimension of research as it enables us to detect molecules in the atmosphere of some of these planets. This talk will bring us up to date with the latest findings.
Wednesday 11th September 10:30	•	Wesley Hall Westby Street Lytham FY8 5LU	Organised by: IET/Lytham PROBUS Contact: Mike Bell (Michael.Bell@ietvolunteer.org)		
Wednesday 11th September 19:30		The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)		
Thursday 12th September 18:00		Lakes College Lillyhall Business Park Hallwood Road Workington CA14 4JN	Organised by: IET Contact: Artur Majchrowski (artur.majchrowski@ietvolunteer.org)		
Thursday 19th September 19:30	Sellafield Past, Present and Future	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Michael Foy	The history of Sellafield is the history of Nuclear in the UK. This talk will lead you from the origins of our Nuclear heritage and the race for a deterrent through to the development of civil nuclear power generation, reprocessing and the current engineering challenges associated with decommissioning of the nuclear legacy. At its core is a fascinating journey of British engineering across the decades.
Thursday 19th September 19:15	Does Alien Life Exist?	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	lan Palmer	This presentation considers the natural scientific and chance events which allowed first simple, and then, complex life to appear and evolve into human life on Earth and the scientific likelihood of a similar, or equivalent, chain of events occurring elsewhere, including 'chance events' such as mass extinctions, Mitochondrial Eve, etc.
Thursday 26th September 18:30	Presentation on the Wind Farms	ТВА	Organised by: IET Contact: Mike Bell (Michael.Bell@ietvolunteer.org)	Martin Bates	ТВА
Wednesday 9th October 19:30	MNZ Cluster – Permanent Storage of CO2 in Depleted Morecambe Bay Gas Fields	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Jack Richards Spirit Energy Ltd.	The Morecambe Net Zero project is being managed by Spirit Energy Ltd. to provide permanent storage for CO2 from industrial processes. Kimberly Clarke in Barrow, who are changing energy supply from natural gas to blue hydrogen will be one of the first to store their CO2 in these fields.
Thursday 10th October 11:00	Small Modular Reactors	Glendower Hotel North Promenade Lytham Saint Annes FY8 2NQ	Organised by: IET Retired Members Contact: Suzanne Flynn (suzanne.flynn@ietvolunteer.org)	Dr John Jones Technical Director Fairlie Associates	Dr Jones started his career in the nuclear industry as Senior Lecturer in Nuclear Design at the Royal Naval College, where he led a team designing a small nuclear reactor Rolls Royce. He then Joined the Central Electricity Generating Board and was the Responsible Engineer for the safety case permitting the first fuel reload of Sizewell B, the only Pressurised Water Reactor in the UK. Latterly, he joined the Nuclear Installations Inspectorate (now ONR), where he worked on Generic Design Assessment of new reactors, and became the Professional Lead for Nuclear Fuel. Dr Jones will explain what went wrong with the existing reactor designs and why we need to change. The current energy mix will be considered briefly and the potential role of nuclea power. Then the concept of small (and not so small) modular reactors will be discussed and a consideration of the obstacles that need to be overcome to make them a reality.

The Institution of Engineering and Technology - Lancashire and Cumbria Network Lecture Programme September 2024 - December 2024

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Thursday 10th October 14:00 to 18:00 (by appointment)	Membership Clinic	Gateway Foyer University of Cumbria Fusehill Street Carlisle CA1 2HH	Organised by: IET Contact: Artur Majchrowski (artur.majchrowski@ietvolunteer.org)	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 Gateway Foyer, University of Cumbria, Carlisle, CA1 2HH. 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.
Tuesday 15th October 11:00 to 15:30	UCLan Engineering Careers Fair Event	Engineering Innovation Centre - UCLAN Fylde Road Preston PR1 2XS	Organised by: IET Contact: Fred Eastham (frederick.eastham@ietvolunteer.org)	Kirijen Vengadasalam BEng PhD Senior Lecturer in Aerospace Engineering	The UCLan School of Engineering are currently inviting Schools, Colleges and Universities to participate in this event. The aim is to provide pathways to education and a career in Engineering with inspiring industrial talks. The Introduction & icebreaker session starts at 11 am with careers stalls until 12:30, industrial talks from 1 pm to 2.30 pm and finally mock interviews from 2.00 pm to 3.30 pm (for UCLan Students only). Students will be in attendance via their Careers coordinator: For School, College or University Registration please contact: Kirijen Vengadasalam BEng PhD Senior Lecturer in Aerospace Engineering, CM147, C&T Building, Email: kvengadasalam@uclan.ac.uk
Thursday 17th October 19:15	60 Years in Air, Land and Sea	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	George Seyfang BSc Retired Aerodynamicist BAE Systems	The talk will cover a wide range of Air projects that have been worked on during 42 years at British Aerospace / BAE SYSTEMS. These include the 6 well-known military jet aircraft ranging from Canberra to Typhoon, plus Concorde, Spaceplanes and also several unpublished projects. Following retirement, and the construction of a small wind tunnel in the home garage, a variety of Land projects have been explored, from the Greenbird land yacht which achieved a world speed record of 126mph, to fuel economy cars and streamlined bicycles. More recently there have been Sea projects including the Saildrone uncrewed marine research vessel that has circumnavigated the world and production has expanded to over 100 units which are at sea for months at a time. There have also been projects aimed at improving the efficiency of water-borne craft, from racing rowing boats and ferry boats to giant container ships.
Thursday 17th October 19:30	Building a Nuclear Quay	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Alan Day	Did you ever wonder how to design and build a nuclear quay, how to overcome challenges in the ground and working next to water, or how to design a major structure to resist extreme seismic loading? This talk will provide an overview of the design and construction processes for one of the UK's most challenging projects, and provide answers to these fundamental questions - and more.
Tuesday 22nd October 18:30	Model Based Engineering	The Canberra Suite The Samlesbury Hotel Preston New Road Samlesbury Preston PR5 OUL	Organised by: IET Contact: Nigel Whitaker (nigel.whitaker@ietvolunteer.org)	Craig Hoyle	Model Based Engineering Methodologies and are continually developing capabilities in the following areas: • Functional and Architectural Modelling • Model Based Software processes • CFD and FEA modelling • System Level Multiphysics modelling This presentation will focus on the System Level Multiphysics Modelling of Aircraft Mechanical, Electrical and Fluid Systems aimed at supporting the early validation of requirements and optimisation of integrated systems.
Wednesday 23rd October 19:30	Dorothée Pullinger – Barrow's Famous Professional Engineer	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Nina Baker Independent Engineering Historian	Dorothée Aurélie Marianne Pullinger MBE. Aero and automobile engineer and entrepreneur trained at Arrol Johnston's car factory and was headhunted to become the very young supervisor of Vickers Barrow's thousands of WW1 munitionettes. Nina Baker will tell the story behind the Dorothée Pullinger's plaque, which visitors to BAE SYSTEMS Works can see on the right as they cross Michaelson Road Bridge, Barrow-in-Furness.
Tuesday 12th November 18:30	Present Around the Network	Lancaster University	Organised by: IET Contact: Fred Eastham (frederick.eastham@ietvolunteer.org)	Various	Present Around The Network is a competition for Young Professionals and Students within engineering to develop and showcase presentation skills. Prize money of £150 (and 2nd prize of £100 subject to number of entrants) available to win. You don't have to be a member of the IET to enter but must be 18-30 years of age and be prepared to: • Deliver a 10 minute presentation on any engineering or technology related area • Enhance your knowledge • Develop your skills • Increase your profile and • Open doors for your career

The Institution of Engineering and Technology - Lancashire and Cumbria Network Lecture Programme September 2024 - December 2024

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Wednesday 13th November 19:30	Talk on 'Personal Survivability'	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/PESC Contact: Anne Morris (anne.morris@ietvolunteer.org)	Dr. Eluned Lewis Team Leader SH 'Survivability' Qinetiq	Staying Alive: Debunking common misconceptions about body armour. Hollywood films have 'glamourized' the perception of body armour. Body armour is in fact a sophisticated system of materials, providing differing levels of protection against different threats to vulnerable parts of the body. This lecture will debunk some common myths about body armour and will discuss the UK's world leading work in body armour research, development and acquisition. Body Armour is important for soldiers in the field and for police facing knifewielding criminals, etc. Dr. Elund Lewis leads a Team at Qinetiq designing better protection that is less cumbersome to wear, particularly for women, whose bodily shapes differ significantly from those of men!
Thursday 14th November 19:15	Thirlmere Aquaduct	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	John Butcher	More than a century ago a massive 80+ mile long tunnel was built under Skelsmergh & Scalthwaiterigg. The Victorian engineering marvel carries water all the way from Thirlmere to Manchester entirely by gravity. Nobody knows more about this aquaduct than John Butcher who worked for United Utilities for more than 25 years & was their aqueducts manager. John will tell the remarkable story of the construction & operation of this aqueduct.
Saturday 16th November 9am – 4pm	UlverSTEM	Ulverston Victoria High School Springfield Road Ulverston LA12 0EB	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	There are shows and presentations throughout the day	UlverSTEM is an interactive Science, Technology, Engineering & Maths focused event for 6-16 year olds. An exciting collaborative event which gives young people in and around Furness the chance to explore the STEM opportunities on their doorstep. An opportunity for young people and their families to find out what is on offer in and Furness, in terms of continuing education and future careers.
Thursday 21st November 19:30	Bursary and Scholarship Evening With Talk by Darren Cavan	The Forum 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: IET/BDAE Contact: Anne Morris (anne.morris@ietvolunteer.org)	Darren Cavan CEO Oxleys Development	Darren joins us to provide an inspirational talk about his career in engineering. Having joined Oxley in 1994 after completing a Mechanical Engineering Apprenticeship at VSEL (now BAE Systems), he holds a First Class Hons Degree in Mechanical and Computer Aided Engineering. Darren was appointed as Oxley Technical Director in May 2009, his particular areas of expertise include LED Lighting for aerospace applications and night vision upgrades. Darren was then appointed Head of the Lighting & Systems division in 2017 and took up the post of Oxley Group CEO in 2018. In 2019 Darren was named by The Manufacturer as one of the industry's 'Top 100' in the category of Inspiring Leader.
Thursday 5th December 11:00	Eden North Project	The Netherwood Hotel and Spa Lindale Road Grange-over-Sands Cumbria LA11 6ET	Organised by: IET Retired Members Contact: Mike Bell (Michael.Bell@ietvolunteer.org)	Tracey Robbins Eden North Project	
Thursday 5th December 19:15	Kendal Flood Defences	Castle Green Hotel Castle Green Lane Kendal LA9 6RG	Organised by: IET/KDES Contact: John Doffegnies (john.doffegnies@ietvolunteer.org)	TBA The Environment Agency	
			Events in planning - Details	s will be published on o	our website
	TSR2 - Cock-Up or Conspiracy		Organised by: IET Contact: Mike Bell (Michael.Bell@ietvolunteer.org)	Mike Flynn	The speaker, Mike Flynn, is an experienced ex RAF fighter pilot, who was probably destined to fly the TSR2. This was not to be and Mike will give his personal view on the various factors that led up to the controversial cancellation in 1965 of, arguably, the most advanced strike aircraft of its time – cost, performance, innovation, politics, in-fighting, opposing cultures, information, disinformation, missing information, speculation. Mike will discuss what is known about the unprecedented decision to order the breaking up of the prototypes, the destruction of the drawings, tooling & jigs? And why did some airframes survive?

Cumberland Report - Rachel Gleaves

26/07/24 Engineering Open House Day

The STEM event has been run to great success the past few years and continues to grow in popularity. The event intends to showcase the importance of engineering to an audience of 5-13 year olds. We utilised the Engineering Centre of Excellence at Leconfield, Cleator Moor as the venue – which offers an engineering workshop style space that can host a range of activities.

More than 400 people attended the event, making it our biggest open day yet! Organisations across the region demonstrated their latest technology and projects, with young people encouraged to try operating robotic dogs, virtual reality games, and various puzzles and challenges across the site.

A Bake Sale raised over £170 in support of The Phoenix Youth Project. The organisation is an award-winning youth work charity that supports young people aged 8 -19 years old in Cleator Moor & Frizington. They provide modern, forward thinking, and exciting youth work that seeks to engage with young people socially, recreationally and emotionally. The project currently delivers ten evening youth club sessions across the area.



https://www.phoenixyouthproject.org.uk/

EOHD Volunteers: Brian Miles, Artur Majchrowski, Bill Tut-Babur, Rebecca Haxby, Afnan Akhtar, Joseph Rossall, Dharmesh Premchande. Shona Tait & Rachel Gleaves.

06/07/24 Activity Day for Foster Families / Cared for Children

Foster families from across Cumberland headed to Cleator Moor for a fun-filled day of engineering and craft activities with staff from Sellafield Ltd.

More than 40 young people aged between 4 and 16 and their carers took part in the event on Saturday (July 6), which saw them make and fire paper rockets, operate small robotic dogs, programme mice, operate a drone simulator, and try their hand at virtual reality-based games.

The day was organised and coordinated by Claire O'Connor and the team from the Engineering Centre of Excellence, who worked closely with Cumberland Council to ensure the day catered for everyone attending.

This event reinforced the commitment of the Engineering Centre of Excellence to promoting inclusivity and sparking passion for engineering through hands-on activities. These experiences aim to showcase the breadth of possibilities within the engineering field and highlight that careers at Sellafield are open to everyone.

Attended by Dharmesh Premchande, Joseph Rossall, Rebecca Haxby and Rachel Gleaves.







ONGOING Work Experience

IIET WC organised and 12 sessions over the course of 8 months, supporting development of over 50 young people from across 19 secondary schools in the local area. A bridge building activity was delivered to each group, and the activity was designed to highlight effective communications skills and basic design and construction principals. Giving the groups 'tight' budgets meant teams had to really think about their designs before diving into construction.

The following schools have taken part in the program:

- William Howard Brampton
- West Cumbria Learning
- Millom School
- West Lakes Academy
- Ullswater Community College Penrith
- Richard Rose Central Academy
- Trinity School Carlisle
- Keswick School
- Queen Elizabeth Grammar School Penrith
- Cumbria Autism Academy

- St. Josephs Workington
- Workington Academy
- St John Henry Newman Carlisle
- Samuel King's School Alston
- St. Benedict's School
- Whitehaven Academy
- Richard Rose Morton Academy
- Cockermouth School
- Caldrew School, Dalston Carlisle

Volunteers: Emilia Stakes, Brian Miles, Artur Majchrowski & Rachel Gleaves.

Other Events Supported:

13/03/24 Distington School STEM Day – Joseph Rossall & Rebecca Haxby

18/03/24 Valley Primary School STEM Week - Shona Tait

20/03/24 Valley Primary School STEM Week - Shona Tait

Help support fellow engineers and their families by donating to Foothold

Since 1890, Foothold has supported engineers and their families through life's most difficult challenges – from financial issues and redundancy, to mental health crises and illness and disability. Challenges that could also affect you, or someone you care about.



But as an independent charity, Foothold relies on donations from the

engineering community to fund their life-changing support. This is even more vital now that IET members can no longer make a donation to Foothold via the IET through their membership renewals.

Your support could help to ensure Foothold can continue to be there for people like you, when they're needed most.

So far this year Foothold have provided 779 grants to help engineers and their families facing unexpected crises. And in 2022-23, they supported more people in our community than ever before. If you'd like to play your part in supporting people in your community, please donate whatever you can afford to Foothold today. £25 could fund a call to their helpline from an engineer in crisis, while £50 could help pay towards an unexpected bill for a struggling family.

Make a donation here: www.myfoothold.org/donate.

Thank you.

Contacts

Chairman

Nigel Whitaker Tel: 07921 464062 nigel.whitaker@ietvolunteer.org

Treasurer

Anne Morris Tel: 07793 426966 anne.morris@ietvolunteer.org

Community Secretary

Mike Bell Tel: 07870 666917 michael.bell@ietvolunteer.org

Website and Programme Secretary

Bill Wilcock Tel: 07784 266481 bill.wilcock@ietvolunteer.org

Retired Members' Chairman

Suzanne Flynn
Tel: 01539 822510
suzanne.flynn@ietvolunteer.org

South Cumbria Convenor

John Doffegnies Tel: 07759 269022 john.doffegnies@ietvolunteer.org

West Cumbria Convenor

Artur Majchrowski Tel: 07929 846081 artur.majchrowski@ietvolunteer.org

Young Professionals' Contact

Post vacant - If you are interested in taking on this role please contact the Chairman to discuss

Social Media

David Gonzales
Tel: 07595 677721
david.gonzales@ietvolunteer.org

IET Foothold

Bill Wilcock
Tel: 07784 266481
bill.wilcock@ietvolunteer.org

IET Staff

Senior Partnership Account Manager

Fiona Harvie
Tel: 07711 406376
fharvie@theiet.org

Local Area Manager

Sandra Lucy Tel: 01438 761474 sandralucy@theiet.org

The Institution of Engineering and Technology

Futures Place, Kings Way, Stevenage, SG1 2UA

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