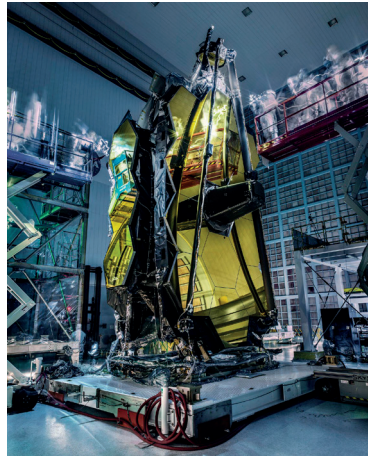
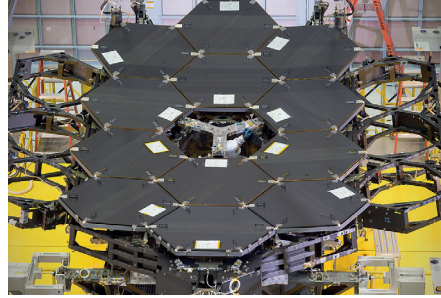


## Dr Robin Catchpole The James Webb Telescope

Dr Catchpole has been paying the Network an annual visit for several years although these were of course suspended because of Covid. We were able to arrange for an on-line talk on the Hubble Space Telescope which attracted one of the highest audiences of all the IET presentations. If you missed the talk, you can view it on YouTube at:

<https://www.youtube.com/watch?v=i2X5ASG-Rjw&t=760s>



Courtesy of NASA

We are pleased that Dr Catchpole is again visiting us now that we are able to resume our normal programme of talks, albeit with limited numbers. He will be presenting a talk on the James Webb Telescope, which was planned before its launch in the hope that it would be a success. The launch was on Christmas day 2021 and following configuration that went to plan is now sending back its first images which are causing great interest in the world of astronomy.

We will be presented with some of the latest images available to astronomers and Dr Catchpole will be explaining what they reveal to us.



Related image - Carina Nebula - Credits NASA, ESA, CSA, and STScI

## Could you take on our Snowdon at Night fundraising challenge?

Could you take on our Snowdon at Night fundraising challenge?

This October will see some intrepid engineers taking on a 'mountainous' fundraising challenge, that's just a little bit different.

Our #TeamFoothold thrill-seekers will be putting their endurance to the test by scaling the dizzying heights of Mount Snowdon, but with a little catch – it has to be completed at night, with only some torches and starlight to guide the way! And it's all in the name of raising vital funds for Foothold's life-changing support for engineers and their families worldwide.

If you choose to get involved, you'll take part in the experience of a lifetime. Having been introduced to your teammates over a pre-challenge evening meal, you'll begin your trek just before midnight in the town of Llanberis, located in the heart of Snowdonia National Park.

From there you and your fellow trekkers will journey to the summit of Mount Snowdon, supported by fully qualified mountain leaders to help you along the way.

Once you've completed the challenge, you'll finish off with a hearty breakfast whilst witnessing the morning sun rise over the spectacular National Park scenery – what could be better?

If you or anyone you know would like to raise vital funds for engineers in need by taking on this unique physical challenge, scan the QR code or email Foothold's Fundraising & Marketing Officer Gemma at [gemma.timmis@myfoothold.org](mailto:gemma.timmis@myfoothold.org) today to find out more.



## Get support with writing a will, for free

Planning for your and your family's future by writing a will and is one of the most important things you'll ever do. But you might find the prospect of creating your will quite daunting, or perhaps you're not sure where to start. To help make the process a little easier, we've teamed up with the National Free Wills Network to give you the opportunity to write your will with expert guidance, completely for free.

On average, one in six of the engineers we support is funded by a gift in a Will, and gifts of all sizes can help and make an impact. There's no obligation on your part, but we'd really appreciate it if you would consider supporting us with a gift in your will – it would help us change thousands of engineers' lives for the better.

To request a free will-writing appointment, email Gemma at [gemma.timmis@myfoothold.org](mailto:gemma.timmis@myfoothold.org) and we'll reserve you a place. Places are limited and run on a first-come-first-served basis, so do get in touch as soon as possible.

## Keep up to date with the latest Foothold news

We'd like to keep in touch with you to share the latest news, updates and stories from the Foothold community, as well as information on events and webinars you might find interesting.

To sign up to receive our monthly e-bulletin, please scan the QR code and complete a contact preference form to give us permission to keep in touch:

Thank you.



**Foothold**  
Supporting engineers

## Contacts

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**The Institution of Engineering & Technology,**  
Futures Place, Kings Way,  
Stevenage, SG1 2UA

## Social Media

**Twitter:**  
[@ietlancscumbria](https://twitter.com/ietlancscumbria)

**LinkedIn:**  
<https://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.

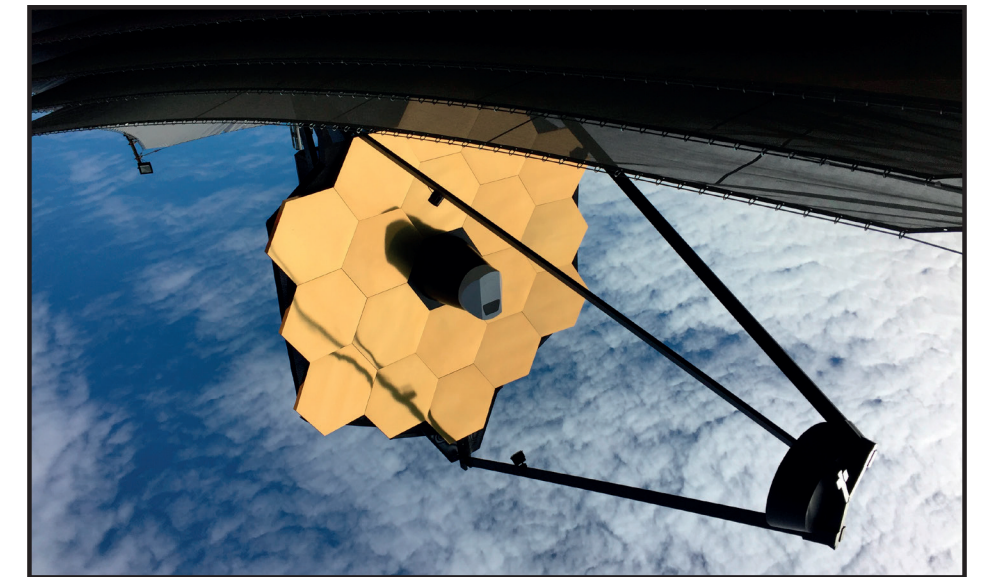
### Below is a selection of the local subgroups and contacts:

Barrow and District Association of Engineers - [www.bdae.org.uk](http://www.bdae.org.uk)  
Kendal and District Engineering Society - [www.kendalengineeringsociety.org.uk](http://www.kendalengineeringsociety.org.uk)  
IMechE North-West - <https://nearyou.imeche.org/near-you/UK/North-Western>  
PESC, Professional Engineers South Cumbria - [enidjk2@outlook.com](mailto:enidjk2@outlook.com)

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## Lancashire and Cumbria Network



## Programme Card

September 2022

Free to attend - all welcome

Professional Home for Life® for Engineers and Technicians

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





## Chairman's Introduction

Dear Lancashire and Cumbria Network members,

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. I would like to express my thanks, and I am sure that of all the local members, to Fred for his last 3 years as chairman in a tenure that covered one of the most challenging periods in the recent history of the profession, and the nation, which has resulted in fundamental changes to our way of work and how we communicate with each other. Thankfully digital technology allowed us to remain in touch and enabled us to continue with some of our events and even expanded the reach and allowed us to participate across local networks.

However, there is no substitute for in person events which I for one have missed over the last couple of years. We expect future events will be a mix of in-person and virtual which will allow us to reach a larger and more geographically spread audience but to also remain in touch with

our local members offering the opportunity to network with other engineers.

Over the course of my tenure, I am hoping to re-engage with our local educational institutions and help encourage the next generation to see the benefits of choosing a career in a STEM subject. I would like to increase our reach and influence so would like to see more members to get involved with the local communities - so if you can spare the time it would be really appreciated. If you would like to get involved contacts are listed in this programme for each of the local branches.

Although this my first Chairman's Address, sadly it will also be the last printed version of the events calendar mailed to members. After this issue our programme and new bulletins will only be available as an electronic version. This is being driven by the need to reduce our carbon footprint, but we do hope that we continue to reach all of our members.

I hope you enjoy the events on offer and hope to see you at some of them soon.

Mike Foy.

## Retired Members' Committee Chairman

I am delighted to be taking over as the new chairman of the Retired Member's Committee and hope to be able to continue to deliver 4 or 5 interesting talks around the region each year (and of course the popular optional lunches after the talk). I would like to thank Brian Flynn, the outgoing chairman, for the hard work he and the committee have put in for many years. All are welcome to attend these talks and spouses and friend are equally welcome too.

Suzanne Flynn

Cover image courtesy of NASA

## The Institution of Engineering and Technology - Lancashire and Cumbria Network

### February to May 2022 - Lecture Programme

Date/Time	Event Title:	Venue	Organised by & Contact	Speaker	Synopsis
Tuesday 20th September 18:30	The James Webb Space Telescope	<b>The Samlesbury Hotel</b> Preston New Road Samlesbury Preston PR5 0UL	Organised by: <b>IET</b> Contact: <b>Mike Bell</b> (Michael.Bell@ietvolunteer.org)	<b>Dr Robin Catchpole</b> Cambridge University Institute of Astronomy	A million miles from Earth, the prodigy sibling of the Hubble Space Telescope, this telescope is the most complex telescope ever built. It has an 18 segment gold plated beryllium primary mirror spanning 6.5 metres, designed to look back in time to the birth of the first stars and hunt for planets and stars closer to home, lurking unseen in clouds of dust and gas.
Wednesday 21st September 10:30		<b>Lytham Methodist Church</b> Westby Street Lytham FY8 5LU	Organised by: <b>IET</b> Contact: <b>Mike Bell</b> (Michael.Bell@ietvolunteer.org)		
Wednesday 21st September 19:30		<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>PESC</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)		
Thursday 22nd September 18:00		<b>Lakes College</b> Lillyhall Business Park Hallwood Road Workington CA14 4JN	Organised by: <b>IET</b> Contact: <b>Ben Smith</b> (ben.smith@ietvolunteer.org)		
Thursday 22nd September 19:30	<b>Penetrating the Impenetrable: Inserting New Technology into the Underwater Enterprise via Project Piranha</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>Barrow &amp; District Association of Engineers (BDAE)</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Anthony Stagg</b> Delivery Manager and Chief Engineer	BAE Systems Submarines continues to seek new and innovative ways to improve the maritime underwater capability for our customers, but gaining the confidence to deploy new technology and techniques has often been a barrier to progress and innovation in this field. In striving to solve this problem, a new and deliberately disruptive approach is being deployed via Project Piranha to enable better access for industry and technological advances to enter the field. This aims to produce a functional UK Submarine testbed based on the legacy Piranha platform to enable the UK enterprise to keep pace with all emergent threats, offering suppliers and strategic partners a route to demonstrate their capabilities, and build confidence in the technologies of the future.
Thursday 29th September 18:30*	<b>Technical Visit - University of Sheffield Advanced Manufacturing Research Centre</b>	<b>AMRC North West</b> Roy Chadwick Way Samlesbury Enterprise Zone Mellor Brook Blackburn BB2 7HP	Organised by: <b>IET</b> Contact: <b>Bill Wilcock</b> (bill.wilcock@ietvolunteer.org)	<b>Peter McOnie</b> University of Sheffield	AMRC North West is a gateway development on the Samlesbury Aerospace Enterprise Zone that plays a key role in driving recovery, growth, productivity and innovation to support the competitiveness of Lancashire manufacturing companies and their supply chains. Core capabilities include Additive Manufacturing, Batteries & Automation, Digitalisation, Machining and Low Carbon Technologies. Support is offered to Lancashire manufacturing SMEs through an ERDF funded programme. In addition AMRC North West is a 5G factory of the Future, an open-access testbed to help manufacturers unlock the potential of 5G technology. As a Low Carbon Smart Building Demonstrator AMRC North West is strongly supporting the drive to Net Zero and supports the transformation of manufacturing as part of the High Value Manufacturing Catapult.
Wednesday 12th October 19:30	<b>Soil Degradation</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>PESC</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Dr. Chris Walsh</b> Manchester University	Prior registration is essential for this event.  This is a follow-up to his earlier talk on Ocean Acidification and is part of the Climate Change debate. As with the oceans, our abuse of the soil has led to a reduction of its quality due to loss of humus. Major changes in farming are required to secure future food supplies.
Thursday 13th October 18:30	<b>The Falklands Campaign: An Introduction</b>	<b>The Samlesbury Hotel</b> Preston New Road Samlesbury Preston PR5 0UL	Organised by: <b>IET</b> Contact: <b>Bill Wilcock</b> (bill.wilcock@ietvolunteer.org)	<b>Dr Scott Lindgren</b>	In 1982 the Argentine junta under Leopoldo Galtieri invaded and occupied the Falkland Islands, as the latest act in a long-standing sovereignty dispute over the archipelago. The attempt at gunboat diplomacy backfired with dire consequences when Britain responded with a limited war. This talk provides a short overview of / introduction to the background and major features of the campaign.
Thursday 20th October 11:00	<b>TSR2 Cock-Up or Conspiracy</b>	<b>The Crofters Hotel</b> A6 Cabus Garstang Lancashire PR3 1PH	Organised by: <b>IET Retired Members</b> Contact: <b>Suzanne Flynn</b> (Suzanne.Flynn@ietvolunteer.org)	<b>Mike Flynn</b>	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?  An optional lunch is available after the talk. Booking is essential for both the talk and lunch - please use the flyer in the mailing or available on the website.
Thursday 20th October 19:30	<b>Why We Shouldn't Trust Software: A Cynics Viewpoint</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>Barrow &amp; District Association of Engineers (BDAE)</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Dr Jim Cooling</b>	Dr Jim Cooling is a specialist in real-time design and embedded systems will give his views on the subject of software.
Monday 7th November 18:00	<b>Technical Visit - UCLAN Engineering &amp; Innovation Centre</b>	<b>EIC Building</b> Fylde Road, Preston, PR1 2XS	Organised by: <b>IET</b> Contact: <b>Fred Eastham</b> (frederick.eastham@ietvolunteer.org)	<b>Kyle Hatchard</b> Business Development Manager, EIC	The Engineering Innovation Centre (EIC) located on the UCLAN Preston campus brings together world-leading research, leading business minds and inspiring teaching. The EIC is housed in a new building located close to Preston city centre. The facilities include fire oil and gas, additive and CNC laser welding research laboratories. There are also development workshops for innovation projects including motor sports, CNC manufacturing.
Wednesday 9th November 19:30	<b>Development of Radio Astronomy</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>PESC</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Prof. Anna Scaife</b> Manchester University	Prior registration is essential for this event.  Jocelyn Bell's discovery of Pulsars with primitive equipment, led to the start of Radio Astronomy and the building of the Jodrell Bank steerable telescope.
Thursday 17th November 19:15	<b>BDAE Bursary Awards Evening</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>Barrow &amp; District Association of Engineers (BDAE)</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Julie Mameell</b> Vice Chancellor of Cumbria University	Barrow & District Association of Engineers are pleased to host the Annual Student Bursary Awards followed by a talk by Julie Mameell, Vice chancellor of Cumbria University, BDAE Bursary Awards celebrate successful local students with a wish to study engineering related subjects by presentation of their prizes which this year will total over £6,000.
Thursday 1st December 11:00	<b>A New Way to Teach Leadership/ Behavioural Change</b>	<b>The Netherwood Hotel and Spa</b> Undale Road Grange-over-Sands Cumbria LA11 6ET	Organised by: <b>IET Retired Members</b> Contact: <b>Suzanne Flynn</b> (Suzanne.Flynn@ietvolunteer.org)	<b>Dr Ian Corrie</b>	The speaker, Dr Ian Corrie, is a former police officer, and now Associate Professor and Principal Lecturer in the Institute of Health at the University of Cumbria. He has a DProf in Transformative Learning. He designs and delivers strategic (and behavioural) change programmes in the Nuclear Engineering, Health, Armed Forces and private sectors. He is an Honorary Colonel with 335 Medical Evacuation Regiment. In his talk he will share the development of a new way to teach leadership/behavioural change using neuroscience and psychology. An optional lunch is available after the talk. Booking is essential for both the talk and lunch - please use the flyer in the mailing or available on the website.
Events In Planning - See Website For Details					
TBA - November	<b>Nuclear Fusion in the North West</b> Challenges and Opportunities talk with subsequent panel discussion	<b>Lancaster University</b>	Organised by: <b>IET</b> Contact: <b>Nathan Leadbetter</b> (events@bay-fusion.co.uk)	<b>Bay Fusion</b>	Whilst many think that nuclear fusion is always "30 years away", there have been a number of groundbreaking improvements recently that now mean fusion is closer than ever, with many expecting net positive power being obtained from fusion in the 2030s. In the north west, there have been a number of recent interesting developments, including the proposal to build a nuclear fusion power station by 2040 in Heysham or Moorside, and groundbreaking work being carried out at Lancaster University for UKAEA and Tokamak Energy. This talk by Bay Fusion will cover an introduction to fusion technology, global progress and how the north west is playing its part in this global endeavour. Details will be available on our web site soon.
TBA - November	<b>Present Around The World</b>	<b>TBA - Preston</b>	Organised by: <b>IET</b> Contact: <b>Fred Eastham</b> (frederick.eastham@ietvolunteer.org)	<b>Young Professionals</b>	Present Around The World is a competition for Young Professionals and Students within engineering to develop and showcase presentation skills. Given the restrictions in place in some countries it is still not possible to hold the international heats. However, we will be re-introducing the Local Network element this year. 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. Details will be available on our web site soon.

For the latest news on local network activities please visit our website: [www.thiet.org/lancscumbria](http://www.thiet.org/lancscumbria)

We hope to run some additional visits and lectures during the year.

These will be shown on the website and notification by e-mail. Details of other Institutions events will also be shown on the website as appropriate.

**A New Way to Teach Leadership/Behavioural Change**

**A talk by Dr Ian Corrie DProf**

**Thursday 1st December 2022 – 10.30 for 11.00am  
at The Netherwood Hotel, Grange over Sands, LA11 6ET**



The speaker, Dr Ian Corrie, is a former police officer, and now Associate Professor and Principal Lecturer in the Institute of Health at the University of Cumbria. He has a DProf in Transformative Learning. He designs and delivers strategic (and behavioural) change programmes in the Nuclear Engineering, Health, Armed Forces and private sectors. He is an Honorary Colonel with 335 Medical Evacuation Regiment.

In his talk he will share the development of a new way to teach leadership/behavioural change using neuroscience and psychology. (It is not as easy as you may think!).



Parking and disabled facilities are provided, and tea/coffee will be available on arrival from 10.30am with the talk commencing at 11.00am. This will be followed by an optional 3-course lunch, costing £20. All members, their partners and guests, are very welcome.

Prior booking is essential, whether staying for lunch or not, as space is limited and The Netherwood is always a popular venue. Early application is strongly advised.

Please send your application by November 21<sup>st</sup> to  
Brian Flynn, 5 Grange Drive, Euxton, Chorley PR7 6JE  
Applications will be confirmed by email or post.

Any queries to Brian on 01257 272396 on [bflynn@btinternet.com](mailto:bflynn@btinternet.com)

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Please reserve..... places for the talk & lunch/talk only (please delete as applicable) at The Netherwood on Thursday 1<sup>st</sup> December 2022. The optional lunch is £20 per person.

I enclose a cheque, payable to 'Friends of the IET, Lancs & Cumbria' for £.....

Name(s).....Phone no.....

Email address, or address, that we can use to send acknowledgement. Please indicate if you wish us to send you directions to The Netherwood.

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Please give forenames and surnames of all those applied for, and any special dietary requirements.

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## **TSR 2 – Cockup or Conspiracy?**

**Illustrated talk by Mike Flynn**  
**Thursday 20<sup>th</sup> October 2022 – 10.30 for 11.00am**  
**at The Crofters, A6 Cabus, Garstang PR3 1PH**



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?



Parking and disabled facilities are provided, and tea/coffee will be available on arrival from 10.30 am with the talk commencing at 11.00am. This will be followed by an optional 3-course lunch, costing £20. All members, their partners and guests, are very welcome.

Prior booking is essential, whether staying for lunch or not, as space is limited and The Crofters is always a popular venue. Early application is strongly advised.

Please send your application by 6<sup>th</sup> October to:  
Suzanne Flynn, 36 Seedfield, Staveley, Cumbria LA8 9NJ  
Applications will be confirmed by email or post.  
Any queries to Suzanne on 01539 822510 or [suzanneflynn@gmail.com](mailto:suzanneflynn@gmail.com)

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Please reserve ..... places for the talk & lunch/talk only (please delete as applicable) at The Crofters, A6 Cabus, Garstang PR3 1PH 2. The optional lunch is £20 per person.

I enclose a cheque, payable to 'Friends of the IET, Lancs & Cumbria' for £ .....  
Please give forenames and surnames of all those applied for, and any special dietary requirements.

Name(s) ..... Phone no .....

Email address, or address, that we can use to send acknowledgement. Please indicate if you wish us to send you directions to The Crofters.

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# Important Information



As part of the IET's move to becoming paper-free, our newsletter mailings will be discontinued this year but will be produced digitally. Should you wish to update your details and marketing preferences, please login to your **MyIET** account <https://www.theiet.org/help/introducing-myiet/>

Check your settings in IET EngX to enable emails, and sign up to the daily/weekly digest to receive an update about events based on your technical interests and your local network.

You can sign up for the digest on the home page once you've logged in. If you notice you're not getting any emails, you may need to add [community@ietengx.org](mailto:community@ietengx.org) to your allowed senders list. Further information and a place to ask questions can be found in the **Support and Answers** area.

Please note all events are also advertised on our new IET web platform <https://engx.theiet.org/local-networks/nw1>