

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

## Lecture Programme January 2025 - September 2025

<b>Wednesday 26th February 11:00</b>	<b>B4RN - Broadband in the Country</b>	<b>Wesley Hall</b> Westby Street Lytham FY8 5LU	Organised by: <b>IET/Lytham PROBUS</b> Contact: <b>Mike Bell</b> (Michael.Bell@ietvolunteer.org)	<b>Martyn Welch</b>	Dependance on the internet has grown exponentially over the last 25 years to a position where it is now considered one of the essential utilities for modern life. Martyn Welch, who has spent a career of over 40 years in telecommunications, electricity and water utilities, explains his involvement in a community-led project to take a sparsely populated rural area of Cumbria from the internet 'dark-ages' into the 21st century.
<b>Wednesday 12th March 19:30</b>	<b>The Challenges Of Developing A Nuclear Fusion Fuel Cycle</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>IET/PESC</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Prof Tim Abrams</b>	Nuclear fusion offers the possibility of long-term sustainable low-carbon energy, but some formidable technical challenges remain to be solved, including the fuel cycle. This talk will discuss the fuel used by fusion reactors and explore some of the challenges and potential solutions involved in providing a sustainable fusion fuel cycle.
<b>Thursday 20th March 19:30</b>	<b>Ultra-Deep Water Oil &amp; Gas Developments in West Africa</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>IET/BDAE</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Tony Oldfield</b>	Oil and gas fields in deep water have increasingly been exploited as the more accessible fields have become depleted. Their exploitation brings ever larger challenges for technology, scale and logistics and are a success story that is little heard about in the UK. Barrovian Tony Oldfield as, Project Director of most of the developments off Africa, has the firsthand experience to tell us about these engineering exploits.
<b>Thursday 27th March 18:00</b>	<b>Networking Event</b>	<b>Engineering Innovation Centre - UCLAN</b> Room EIC317 Fylde Road Preston PR1 2XS	Organised by: <b>IET</b> Contact: <b>Nigel Whitaker</b> (nigel.whitaker@ietvolunteer.org)		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.
<b>Wednesday 2nd April 19:30</b>	<b>British Large Light Cruisers: The Town, Fiji &amp; Minotaur classes in action 1939-1945</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>IET/PESC</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Dr. Scott M Lindgren</b> Naval Historian	During the 1930s, with the London Naval Treaty of 1930 placing limitations on heavy cruiser warship construction and characteristics, the US, Japanese and British navies attempted to circumvent the restrictions on heavy cruiser construction by building light cruisers (vessels with an armament no heavier than 6.1in / 155mm) of similar size and fighting power to conventional heavy cruisers with 8in artillery. In Britain, this resulted first in the 10 Town class vessels, and latterly the reduced Fiji (aka Crown Colony) and Minotaur classes, built to fulfil the obligations of the Second London Naval Treaty of 1936. Though largely overlooked, other than HMS Belfast for her role in the Battle of the North Cape, and her status as an IWM museum ship, the Towns, Fijis and first-completed Minotaurs played critical roles in the naval war 1939-'45, serving as fleet workhorses in all theatres of the conflict. This talk provides a short overview of these frequently-forgotten vessels and their operations during the conflict.
<b>Thursday 25th April 19:30</b>	<b>Our Universe Under a Magnifying Glass</b>	<b>The Forum</b> 28 Duke Street Barrow-in-Furness LA14 1HH	Organised by: <b>IET/BDAE</b> Contact: <b>Anne Morris</b> (anne.morris@ietvolunteer.org)	<b>Thomas Collett</b> Prof of Astrophysics Portsmouth University.	Thomas Collett will join us in April to provide an interesting analysis of "Our Universe under a Magnifying Glass". He is Professor of Astrophysics and a Royal Society University Research Fellow at the Institute of Cosmology and Gravitation, University of Portsmouth. Thomas graduated from Oxford University and undertook his PhD at Cambridge University. He joined University of Portsmouth in 2016 as a post-doctoral research fellow. His research has been funded by the Royal Astronomical Society, University of Portsmouth, Science and Technology Facilities Council and the Royal Society.
<b>Wednesday 5th May 18:30</b>	<b>AI Empowered Renewable Energy Systems</b>	<b>Engineering Innovation Centre - UCLAN</b> Fylde Road Preston PR1 2XS	Organised by: <b>IET</b> Contact: <b>Bill Wilcock</b> (bill.wilcock@ietvolunteer.org)	<b>Dr Xiandong Ma CEng, FIET, FHEA</b> Reader in Power and Energy Systems School of Engineering Lancaster University	More energy will be produced by decentralised renewable sources, primarily driven by the need to reduce carbon emissions and mitigate climate change. The energy systems are becoming increasingly sophisticated, requiring innovative approaches and powerful tools to enhance their management and operation. Artificial intelligence (AI) has emerged as a game-changer in the energy sector in this regard. The talk will explain AI's fundamentals and key components of the AI systems. The talk will then present and demonstrate the latest AI-based tools developed at Lancaster University. It will address how they are used to help increase performance, efficiency, availability and reliability with case studies in smart grids, demand-supply energy management, predictive maintenance, renewable energy forecasting and smart homes.
<b>Thursday 15th May 11:00</b>	<b>Problems and Challenges of Water and Sewage.</b>	<b>Shap Wells Hotel</b> Shap Nr Penrith CA10 3QU	Organised by: <b>IET Retired Members</b> Contact: <b>Suzanne Flynn</b> (suzanne.flynn@ietvolunteer.org)	<b>Helen Clarkson</b> Effective Takeover Manager at VolkerStevin C2V+	TBA

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We strongly recommend that you register to attend though the link on the website - this allows us to contact you if there are any changes to the advertised arrangements.