



HELIC NEWSLETTER

<http://www.helic.org.uk>

January 2020

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INFORMATION ON TALKS

16 January 2020: The Future of Hydrogen Powered Vehicles

Speaker: Marcus Taylor

Hydrogen-powered vehicles are gaining increased attention globally as a transport technology that produces only water with no other tailpipe emissions. These vehicles can help clean up the air in our cities and combat climate change. This talk hopes to offer an insight into the state of hydrogen and fuel cell technology in mobility today, and how a future with widespread deployment of hydrogen-powered vehicles could shape-up.

Marcus, grandson of our own Frank and Margaret Taylor, studied Chemical Engineering at the Churchill College Cambridge which he completed in 2017. Since then, he has pursued work in low-carbon sustainable technologies. He was part of a team developing the first bio-energy with carbon capture & storage (BECCS) pilot plant in the world at Drax Power Station. Currently he is conducting a PhD on fuel cells for heavy duty vehicle applications (trucks, trains, ships) at the University of Birmingham. This year he has also worked at the European agency for fuel cells and hydrogen technology (FCH JU) in Brussels.

20 February 2020: WWII Royal Navy Destroyers

Speaker: Colin Gent

This month we welcome back Colin Gent who gave a talk last year on the Rolls-Royce Merlin engine and the WWII planes it powered.

His talk this time will focus on the design and construction of WWII Destroyers and their role during the war. He will also draw upon his experiences as the Electrical Officer during an 18 month Far East commission in an ex-WWII destroyer that had been modernised in the 1950's.

Colin is a Chartered Electrical Engineer. He spent 7 years with the RN and Admiralty before joining Kodak where he managed their Engineering Division. He remains interested in all aspects of engineering, giving talks to organisations such as U3A and clubs like HELC.

19 March 2020: As Old as the Hills - Measuring Geological Time

Speaker: Prof. Tony Hurford

"As Old as the Hills" may originate in the Biblical book of Job and has long been used to imply that something - or somebody - is very old. The Earth is about 4.5 Thousand Million Years old and geologists have striven over hundreds of years to understand the age and sequence of the many different rock types which make up our planet. The study of fossils has provided a means to establish the relative sequences of rock strata and to enable correlation of rocks in different places across the world. Modern techniques of dating with radioactive isotopes (which occur naturally in rocks and minerals) now provided a means of measuring "absolute" ages of rock sequences, usually expressed in millions of years (Ma).

This talk will consider the use of fossils and radiometric dating in establishing a time framework for understanding movement of the crustal tectonic plates, in calibrating evolution including hominid evolution and in the search for hydrocarbon deposits.

Tony is a geologist, formerly of University College London and the University of Bern, Switzerland, where he taught geology at undergraduate and postgraduate level and ran research groups working on radiometric dating. He also established a research company Eurotrack Ltd providing analyses for hydrocarbon companies in return for financial support of the research group. Now in retirement he runs a job club in Potters Bar to try and help those seeking work, and teaches a U3A class in geology.

**VISIT TO THE BATTLE OF BRITAIN BUNKER, UXBRIDGE
28 NOVEMBER 2019**

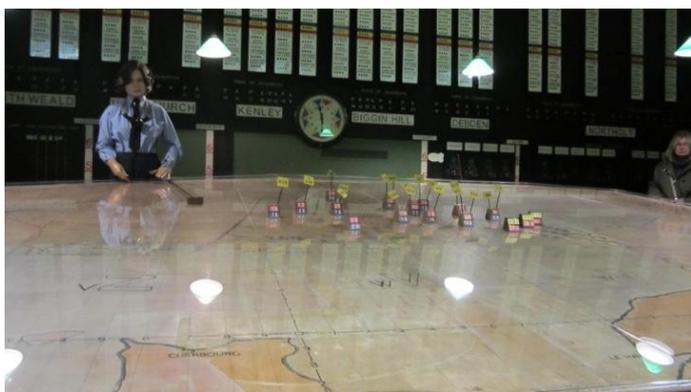
On Thursday 28 November, fifteen HELC members and their guests visited the bunker at Uxbridge from which the air defence of SE England was controlled during the Battle of Britain. This was a welcome follow-up to our earlier visit to the overall Fighter Command centre at Bentley Priory.



With the M25 in a good mood, we all arrived in plenty of time for tea, coffee and biscuits, after which we met our two excellent guides, Stephen Dimmock and Mark Hamlin. After a brief introduction to the beginnings of RAF Uxbridge in WW1, we saw the memorial to the RAF pilots who fought, sometimes outnumbered by ten to one, in the battle, during which over 1300 enemy aircraft were shot down.



We then descended the 76 steps leading down 65 feet to the underground bunker that housed the Operations Room of 11 Group, which is arranged as it was at the peak of the battle on 15 September 1940. At its centre is the Plotting Table with its large map of SE England divided up into reference squares. On the wall behind the table, a large display of coloured lights showed the operational status of each squadron in the group. And overlooking both were galleries for the rooms' supervisors and, above them, the control officers who decided when and where their squadrons should be ordered into battle. On the table the locations of hostile and defending squadrons were shown by labelled wooden blocks. Their positions were continually adjusted by the twenty or so WAAF plotters around the table; they received on telephone headsets the information on the approaching enemy from the Filter Room at Bentley Priory and on the movements of British forces ordered by the controllers. The object was to keep the plot no more than five minutes behind what was actually happening in the air.



After a quite easy climb out of the bunker,

we returned to the visitors' centre for a tasty lunch – sandwiches and quiche – after which we were free to look around the new interactive exhibition. This began with a very informative time-line showing how a first centralised air defence system had been devised during WW1. Between the wars, the concept was developed, largely thanks to Air Chief Marshall Sir Hugh (later Lord) Dowding, into the 'Dowding System' without which the Battle of Britain could not have been won. We also saw examples of the equipment that was used in the system, including the all-important RDF (radar); its simple one-line CRT display provided target range and bearing and even IFF (Identification Friend or Foe).

Once again we must thank Ian Williamson for organising a most interesting and enjoyable visit.

John Brooks



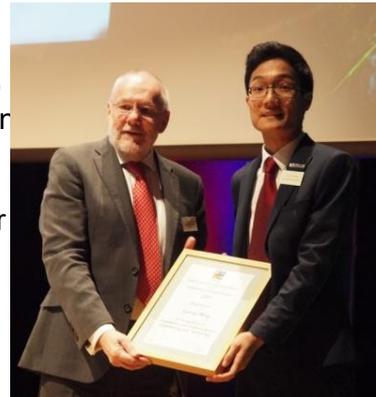
2019 EMSTA SEMINAR: AUTONOMOUS VEHICLES

“Autonomous Vehicles – Are they as safe as we are led to believe?” (to give it its full title), EMSTA’s twentieth annual prestige seminar, took place on the evening of Wednesday 20 November 2019, in the Weston Auditorium of the University of Hertfordshire. 320 people had booked in, including a number of HELIC members, but on the day there were many no-shows. However the Seminar was a success, some have called it the “Best yet!”

The University provided a selection of tasty sandwiches in the Atrium for the delegates to enjoy while networking with other delegates. Unfortunately the large number on no-shows resulted in the waste of a lot of good food.

Dr Rodney Day, Dean of the School of Engineering and Technology, University of Hertfordshire, gave a welcome address and then handed over to **Tim Armitage**, ARUP, UK Autodrive Project Director, who was an excellent Chairman, successfully keeping the speakers to a very tight schedule.

Before the main business of the evening the Chairman had two pleasant tasks to fulfil. This year the EMSTA Scholars Innovation Award went to Lucius Wong, of The Knights Templar School, Baldock, an outstanding Arkwright Scholar from the region. He was quite impressive and gave a confident “Thank You” speech after receiving his presentation. The Chairman then welcomed Ian Ling, as Friend of EMSTA. Ian had been with EMSTA, and its predecessor since its formation 20 years ago. He was a very active member, including organizing the successful 2017 Seminar, “Mars – Man or Machine?”



The first speaker, **Nigel Wall**, gave an introduction to the 5 levels of automation that have been defined and gave examples of vehicles that have various levels of autonomous capabilities. His paper, **Progress towards Fully Driverless Cars**, also touched on some ethical and legislation questions.



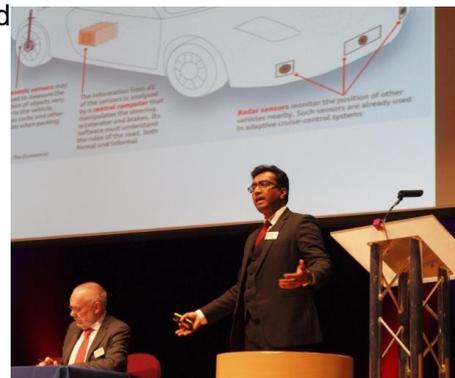
The second speaker, **Nick Carpenter**, Engineering Director, Delta Motorsport Limited, talked about the **Autonomous vehicles: The status of technology development**. Nick first briefly described some of the products his company is working on, mostly associated with motorsport. He then explored the fundamentals of what constitutes an autonomous vehicle, what’s required to build one and the state of the art in each of the key on-vehicle technologies, from sensing to computing and vehicle motion. He explored the key challenges in delivering a truly autonomous vehicle service.

The third speaker **Brian Matthews**, Head of Transport Innovation, Milton Keynes Council, talked about **UK Autodrive -**

Exploring the potential for Connected and Autonomous vehicles in an urban environment.

He showed a couple of videos and photos of the various vehicles used in on-the-road trials in Milton Keynes during the UK Autodrive project, explored the findings of this research programme and discussed how Connected and Autonomous Vehicles can potentially support wider mobility and social objectives for urban living in a rapidly growing city, such as Milton Keynes.

The fourth speaker, **Prof Prashant Pillai**, School of Mathematics and Computer Science, Faculty of Science and Engineering, University of Wolverhampton, talked about the **Security for Connected & Autonomous Vehicles** in the light of increased cyber security threats.



The seminar ended with a question and answer session, superbly managed by the Chairman, which provided further interesting insights from the speakers.

The **Vote of Thanks** was given by **Roger Boddy, Chairman of EMSTA**, Founder of Global Teleports (UK) Ltd, who took the opportunity to promote next year's Seminar, "**Space Debris - 2020 vision**" which will be held in the Weston Auditorium, De Havilland Campus, University of Hertfordshire, on Wednesday 18 November 2020.

This was the sixth year that EEESTA streamed the seminar live to the Internet, thanks to the technology and generosity of Missing Link Live and Global Teleports.

Photographs on by John Smith. Text by Ian Williamson.



The panel of speakers (from left to right):

Brian Matthews Prof Prashant Pillai Nick Carpenter Nigel Wall

CANTERBURY SPRING BREAK 26-30 APRIL 2020

Shirley has received two more bookings since the previous newsletter bringing the total to 38. If you are interested but have not yet booked, please email Shirley without delay.

For full details and a booking form see the September Newsletter. A deposit of £50 per person is required to reserve a place with full payment due by March 2020. Arrangements for pick up locations will be in the March newsletter.

Any other questions please email or Phone Shirley Greatrex. Contact details in distributed copy of the Newsletter.

A MODERN FABLE

An old geezer became very bored in retirement and decided to open a medical clinic. He put a sign up outside that said: "Dr. Geezer's clinic. Get your treatment for £500, if not cured, get back £1,000."

Doctor "Young", who was positive that this old geezer didn't know beans about medicine, thought this would be a great opportunity to make some money. So he went to Dr. Geezer's clinic.

Dr. Young: "Dr. Geezer, I have lost all taste in my mouth. Can you please help me ??"

Dr. Geezer: "Nurse, please bring medicine from box 22 and put 3 drops in Dr. Young's mouth."

Dr. Young: Aaagh !! -- "This is Gasoline!"

Dr. Geezer: "Congratulations! You've got your taste back. That will be £500."

Dr. Young gets annoyed and goes back after a couple of days figuring to recover his money.

Dr. Young: "I have lost my memory, I cannot remember anything."

Dr. Geezer: "Nurse, please bring medicine from box 22 and put 3 drops in the patient's mouth."

Dr. Young: "Oh, no you don't, -- that is Gasoline!"

Dr. Geezer: "Congratulations! You've got your memory back . That will be £500."

Dr. Young (after having lost £1000) leaves angrily and comes back after several more days.

Dr. Young: "My eyesight has become weak --- I can hardly see anything!!!!"

Dr. Geezer: "Well, I don't have any medicine for that, so here's your £1000 back", whilst handing him a £10 note.

Dr. Young: "But this is only £10"

Dr. Geezer: "Congratulations! You got your vision back! That will be £500."

Moral of the story: Just because you're "Young" doesn't mean that you can outsmart an "old Geezer"

PARAPROSDOKIANS

Paraprostdokians are figures of speech in which the latter part of a sentence is unexpected.

Some examples:

- Where there's a will, I want to be in it.
- Since light travels faster than sound, some people appear bright until you hear them speak.
- If I agreed with you, we'd both be wrong.
- War does not determine who is right - only who is left.
- **Knowledge** is knowing a tomato is a fruit. **Wisdom** is not putting it in a fruit salad.
- They begin the evening news with 'Good Evening,' then proceed to tell you why it isn't.
- To steal ideas from someone is plagiarism. To steal from many is called research.
- In filling in an application, where it says, 'In case of emergency' - notify: I put 'DOCTOR.'
- I didn't say it was your fault, I said I was blaming you.
- Women will never be equal to men until they can walk down the street with a bald head and a beer gut, and still think they look sexy.
- Behind every successful man is his woman. Behind the fall of a successful man is usually another woman.
- A clear conscience is the sign of a bad memory.
- I used to be indecisive. Now I'm not so sure.
- Nostalgia isn't what it used to be. Nor is there any future in it.
- Change is inevitable, except from a vending machine.
- Going to church doesn't make you a Christian any more than standing in your garage makes you a car.
- I'm supposed to respect my elders, but it's getting harder and harder for me to find one now.
- I am not arguing with you, I'm just explaining why you're wrong.

Find more like this at paraprostdokians

22nd Annual General Meeting of HELC

To be held at 12:15 on 19th March 2020
at Homestead Court Hotel, Welwyn Garden City

Agenda – AGM Chairman: Peter Arrigoni

1. Approval of the minutes of the 21st Annual General meeting held on 21 March 2019
2. Chairman’s Report for the year 2019.
3. Hon. Treasurer’s Report and Approval of the Statement of Accounts for the financial year ending 31 December 2019.
4. Election of the Officers and Committee for the forthcoming year.
5. Appointment of the Independent Examiner of Accounts for year to 31 December 2020.
8. Any other business. Please advise the Secretary, Allan Goodfellow, of any items in writing, no later than 7 days before the date of the meeting: secretary@helc.org.uk

Documents:

1. Minutes of the 21st Annual General Meeting (See page 8)

The following will be included with the March Newsletter:-

2. Chairman's Report for the year 2019
3. Annual Statement of Account for the Year to 31 December 2019
4. List of Nominations for the Committee and Officers



COMMITTEE AND OFFICERS NOMINATION FORM

I, _____ wish to stand as a Committee Member / Chairman /
Treasurer / Secretary for the Hertfordshire Engineers' Luncheon Club. (delete as appropriate).

Nominated by _____

Seconded by _____

Nominee's Signature _____ Date _____

Please send to the Secretary no later than 1st March: Allan Goodfellow, Contact details in the distributed copy of the Newsletter.

Minutes of the 21st Annual general Meeting

The 21st Annual General Meeting of the Hertfordshire Engineers Luncheon Club was held on Thursday 21st March 2019 at 12.15 pm at the Homestead Court Hotel, Welwyn Garden City.

The meeting was opened by Ian Williamson who immediately asked members to elect Peter Arrigoni to be the President. This motion was approved unanimously by a show of hands.

Ian then asked members to elect en bloc Chris Dawes, Julian Usher-Smith, Paul Douglas and Mike Champion as Vice-Presidents. This motion was also approved unanimously by a show of hands.

Having concluded those preliminaries, Peter Arrigoni took the chair for the rest of the business.

1) Approval of the Minutes of the 20th Annual General Meeting held on Thursday 15th March 2018.

The minutes had been previously circulated with the calling notice of the AGM. There being no proposals for amendment of the minutes, the Chairman asked for the Minutes to be approved. The Minutes were approved unanimously by a show of hands.

2) Chairman's Report on the year 2018

The Chairman's report had been previously circulated in the March 2019 Edition of the HELCL Newsletter. A proposal to accept the report was made by Ian Williamson seconded by Allan Goodfellow, and approved unanimously by a show of hands.

3) Hon Treasurer's Report for the year ending 31st December 2018

The Treasurer David Bell had circulated the accounts previously and spoke briefly about the report. Ralph Rayner said he felt that the club's surplus of over £6,500 was too high. David stated that this had been discussed previously at Committee Meetings and was being gradually reduced as it has been this financial year compared with the previous year. The matter will be added to the Agenda for the next committee meeting.

There being no further questions the chairman asked members to approve the Treasurer's report and accounts. This was carried unanimously by a show of hands.

4) Election of Officers and the Committee for the forthcoming year

The following members were unanimously elected to the committee:-

John Hammond: Chairman:

David Bell: Treasurer

Allan Goodfellow: Secretary

5) Election of the Committee for the forthcoming year

The following members were elected en bloc to the committee:

Paul Smith, Roy Franklin, Ian Williamson, David Purser, Ian Reeve and Philip Moloy.

The chairman thanked Phil Moloy for volunteering to join the committee.

The nominations were proposed by John Hammond, seconded by Peter Arrigoni and approved nem con.

6) Appointment of Independent Examiner of the Accounts for the year to 31 Dec 2018

The chairman asked for two volunteers to take over this duty, previously carried out by himself and Chris Dawes.

8) Any other Business

None

Minutes recorded by Allan Goodfellow

COMMITTEE MEMBERS

Committee Post	Name	Email Address	Phone No.
Chairman	John Hammond	Chairman@helc.org.uk John.Hammond@helc.org.uk	
Treasurer & Membership Secretary	David Bell	Treasurer@helc.org.uk Membership@helc.org.uk	0845 463 6645
Secretary & Newsletter Editor	Allan Goodfellow	Secretary@helc.org.uk Editor@helc.org.uk	
Day Visits Organiser & Webmaster	Ian Williamson	Visits@helc.org.uk Webmaster@helc.org.uk	
Lunches Secretary	Paul Smith	Lunches@helc.org.uk	0845 467 9983
Speaker Secretary	Roy Franklin	SpkrSecretary@helc.org.uk	
Joint Away Breaks Organiser	David Purser	AwayBreaks@helc.org.uk	
Joint Away Breaks Organiser	Ian Reeve	Ian.Reeve@helc.org.uk	
	Phillip Molloy	Phillip.Molloy@helc.org.uk	
Ex-Officio Members			
President	Peter Arrigoni	Peter.Arrigoni@helc.org.uk	
Vice-President	Julian Usher-Smith	Julian.Usher-Smith@helc.org.uk	
Vice-President	Paul Douglas	Paul.Douglas@helc.org.uk	
Vice-President	Mike Champion	Mike.Champion@helc.org.uk	
Vice-President	Chris Dawes	Chris.Dawes@helc.org.uk	
Non-Committee			
Walks Secretary	Vernon Clough	Walks@helc.org.uk	
Joint Away Visit Secretaries	Peter & Shirley Greatrex	PS.Greatrex@helc.org.uk	
Honorary Member	Eric Riches	Eric.Riches@helc.org.uk	

**SAFETY, INSURANCE AND PAYMENTS AT CLUB EVENTS
INCLUDING MEETINGS, WALKS, AWAY BREAKS AND VISITS.**

We stress the importance of Members taking reasonable care to prevent accidents and damage. Also we are asked by our insurers to remind members that it is their personal responsibility to decide on the level of their capability and whether they should participate in each of the Club activities.

Insurance is the responsibility of individual members and their guests. The Club has arranged insurance cover with the Ecclesiastical Insurance Company for Public Liability claims against Members whose names and addresses are recorded in the Club's Membership Register. Member's Guests are not included in our insurance. Only those members who have paid their annual subscription and returned the Annual Registration Form are included on the Register and are insured. If you are in any doubt about the inclusion of you or your spouse in the Register you should check with the Membership secretary.

The Club arranges risk assessments for our Events but before joining in any Club event, Members must ensure they are briefed about unusual risks. Members must also ensure they can cope safely with the weather, ground conditions and other hazards by wearing or carrying suitable clothing, footwear, walking aids and other protective equipment.

Where walks are arranged, brief details of the proposed walk will be given to each member via the Newsletter prior to the event. Members wishing for earlier information should contact the Walk Organiser.

The Committee reserves the right to refuse applications for participation in any Club activity when they judge an unacceptable risk may occur.

When the Club arranges activities which involve Coach Travel, such travel will be an integral part of the cost, which will not be reduced if Members travel independently. Payments made by Members when booking a Club activity are not refundable in any circumstances should the member decide to cancel any part of his booking. Exceptionally, the Committee may decide to make an ex-gratia payment in compensation. Any payment made by a Member for participation in an Event or Visit organised for Members by a Contractor is subject to the Terms of Business of that Contractor and any of his sub-contractors. It is for the Member to ensure his acceptance of their Terms of Business.

LUNCHEON BOOKING FORMS

Lunches must be booked in advance, by posting the form(s) below. Please complete each form and send it with a cheque (£23 per person) to Paul Smith to arrive before **Friday 14th February** or **13th March** as appropriate. Cheques should be made payable to "HELC". Subsequent cancellation will be accepted up until 4 p.m. on the above dates. To cancel either month, ring Paul on 0845 4679983. If there is no reply, leave a message or email including your name, telephone number and how many places you are cancelling. Voicemail and email messages will be acknowledged. If this acknowledgement is not received within two days, your message has not been received and you should call again. Your money will be held in credit unless you advise otherwise if you have cancelled in time. If you book two meals together, please send separate cheques for each month.

IF ANY ITEM ON THE MENU DOES NOT SUIT YOUR DIETARY NEEDS, PLEASE DISCUSS WITH PAUL SMITH.

Please complete the forms and post it to: **HELC Lunch, c/o Paul Smith**, Postal address in the distributed copy of the Newsletter. Telephone **0845 467 9983** Email: lunches@helc.org.uk



Number of Lunches

BOOKING FORM FOR 19 MARCH 2020

	Number of Standard Courses	This month's menu		Number of Alternatives
Starter	<input style="width: 30px; height: 25px;" type="text"/>	Slow Cooked Chicken & Duck Terrine with Tomato, Sweetcorn & Coriander Salsa	Melon	<input style="width: 30px; height: 25px;" type="text"/>
Main	<input style="width: 30px; height: 25px;" type="text"/>	Beef, Mushroom & Stilton Pie Topped with crispy Pastry lid. Fried Diced Potatoes, Carrot & Swede Mash. Green Beans	Salmon	<input style="width: 30px; height: 25px;" type="text"/>
Dessert	<input style="width: 30px; height: 25px;" type="text"/>	Blackcurrant Cheesecake; Coffee & Mints	Fruit Salad OR	<input style="width: 30px; height: 25px;" type="text"/>
			Cheese	<input style="width: 30px; height: 25px;" type="text"/>
Name (Member)		Name (Guest)		
Special Requirements / Helpful Info.				



Number of Lunches

BOOKING FORM FOR 20 FEBRUARY 2020

	Number of Standard Courses	This month's menu		Number of Alternatives
Starter	<input style="width: 30px; height: 25px;" type="text"/>	Flat Portabella Mushroom with Melted Stilton & Curly Bacon & Balsamic Dressing	Melon	<input style="width: 30px; height: 25px;" type="text"/>
Main	<input style="width: 30px; height: 25px;" type="text"/>	Chicken cooked in Asparagus & Roasted Vegetables, Tomato with Garlic Sauce. Mashed Potatoes, Cauliflower Cheese & Peas	Salmon	<input style="width: 30px; height: 25px;" type="text"/>
Dessert	<input style="width: 30px; height: 25px;" type="text"/>	Apple & Rhubarb Crumble & Custard; Coffee & Mints	Fruit Salad OR	<input style="width: 30px; height: 25px;" type="text"/>
			Cheese	<input style="width: 30px; height: 25px;" type="text"/>
Name (Member)		Name (Guest)		
Special Requirements / Helpful Info.				