



Lichfield Science & Engineering Society

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Carol Hannam BSc

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MD, MA, DPhil

Spring 2016

Dear Member,

Another spring – time flies when having fun. I am not sure about fun but we have certainly been having an exciting and thought provoking time in Lichfield Science and Engineering Society. The programme of events has been brought to you through the efforts of your committee and before I go any further let me, on behalf of us all, thank them for their service.

Monthly lectures

Dave Colquitt, Group head of Infrastructure Services saved the day in January by standing in at short notice and delivering his lecture to make us aware of the work which NATS – National Air Traffic Control – undertakes. The lecture was fast and furious with mind boggling facts following mind boggling facts - 24 hour service for 365 days a year, 2 million flights per year, 200 million passengers per year and 2.5 million square miles of airspace over the UK and the Eastern North Atlantic to give you just a few. The video he played of the typical flights which pass through their airspace per day, summed it all up. 120 members, 2 students and 7 visitors were present.

Russell Foster, Professor of Circadian Neuroscience and Head of Department of Ophthalmology, University of Oxford, delivered the lecture ‘The Body Clock and Sleep – science to medicine’ to a capacity audience in February. The lecture received unanimous acclaim. It led us step by careful step through intricacies of diurnal rhythm as he discussed the many states which are affected by it such as blood pressure, melatonin release and cognitive behaviour. He also gave us an insight into his non-rod, non-cone ocular photoreceptor research which was both fascinating and inspirational.

March brought us to Vice Chancellor of Northampton University Professor Nick Petford’s lecture entitled ‘The Volcano that stopped the World’. Professor Petford discussed in the most engaging way the devastating problems caused with the eruption of the Icelandic volcano Eyjafjallajökull. However during the subsequent question session Professor Petford took us all over the world and allowed a discussion about many other frightful scenarios concluding with the Bay of Naples taking the full thrust from the hidden volcano below it. There were 149 member along 4 students and 6 visitors present.

We finished the term with the April lecture ‘London Tideway Tunnels’, presented by David Crawford Chief Engineer, Systems Design and Operations at Thames Tideway Tunnel, to 136 Members, 5 visitors and 1 student. David introduced his lecture with the historical story of the London sewage systems and then explored the problems posed and the solutions found during the planning of this £4.2 billion project.

Schools’ lecture

We were thrilled to treat over a hundred local sixth formers to a repeat of Professor Peter Lambert’s lecture ‘Rise of the superbugs – The end of antibiotics?’ I can tell you that your donations to the Education Fund were put to very good use.



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Needless to say the lecture was just what was needed to cover the school curriculum and I detected no fidgeting students during its delivery. I think any such reprobate would have been lynched! Those young people sat there spellbound and then came up with some very good questions as did their accompanying teachers.

Education Fund

As well as funding the schools lecture we have made four further donations from the Education Fund. Greysbrooke School in Shenstone and Lichfield Library again asked for help to fund their Science Week activities. Charnwood Primary School requested help with their sensory garden project and Erasmus Darwin House had both funding and practical help from many of our members to launch their Saturday Science Day.

Discussion lunch

The discussion was led most ably by PCSO Jenna Gibbons We are especially indebted to her for turning up with but 24 hours' notice when Roz Randall from Staffordshire Safeguarding Children was indisposed.

Jenna gave us a brief overview of the problems encountered by young people using social media, which can bombard their lives. She then parried questions which were thrown at her for the best part of an hour, the answers to which were in some cases quite shocking. She must have been exhausted when we finally let her go.

Jenna also advised us of the latest scams which were besetting folks in the Lichfield area and she gave us some little tinkling bells for our purses. I appreciate mine.

Visits

On the first visit of 2016 twenty Members had a behind-the-scenes (or under-the-Council House) look at the Birmingham Museums and Art Gallery's conservators working on the Staffordshire Hoard. How the artists made these beautiful pieces without the assistance of BMAG's elegant microscopes no-one knows.

At the end of March thirty of us went to Stoke-on-Trent to see the laboratories of Staffordshire University's Forensic Science Department which John Cassella spoke about in his October lecture. Some Members' attempts to save the planet were not assisted by the train service but everyone got there in the end to see not only interesting work but also a striking new Science Centre building.

Owing to the pressures of the racing season Gibson Technology had to postpone a planned second visit but this was replaced at short notice by three separate trips to Amazon's distribution centre in Rugeley. Previous attendance records were smashed by the 105 Members and friends (in some cases wives) who saw how Amazon deal with millions of parcels. It was interesting to compare their system with those we saw at Tesco and John Lewis.

The Visits Secretary is grateful to all the organizations who host us, less so to those Members whom he has to remind about reading and acknowledging e-mails.

The 2016 Erasmus Darwin Memorial Lecture

The 27th Erasmus Darwin Memorial Lecture will be presented by Professor Dame Nancy Rothwell, President and Vice Chancellor of The University of Manchester, on Tuesday 15th November. The lecture will be entitled 'A Life in Science'. We are expecting it to be a very popular lecture so I should advise you to buy your tickets early to avoid disappointment. They will go on sale at LichfieldGarrick on Monday 2nd May. LSES members will have one week priority booking which will commence on Monday 25th April. The cost remains at £10 for LSES members and £12 for non-members.



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Membership

I am pleased to say that the ticketing system we introduced last year seems to have worked well and been helpful to some of our Members. May I take this opportunity to remind you that if you do pre-book a ticket you have an obligation to abide by the 'getting in rules'. This means that you still have **to sign in by 7.50pm**. We need to know the numbers in the studio in case of an emergency and we cannot leave seats vacant during the lecture if other members are waiting.

We have enjoyed reciprocal arrangements with the Stoke on Trent Association of Engineering and the Burton-upon-Trent and District Engineering Society. This has not caused any problems until recently. I have written to the respective President and Chairmen of these associations advising them that we have had to review our membership structure because of the very high numbers of our members attending lectures and that therefore in future, although their members will still be very welcome to visit us free of charge, they will be treated as Visitors and will not be granted admittance until 7.50pm.

Thanks to Mark Richards LSES now has its own Twitter account, @LichfieldSES. We have decided to use Twitter as a way of promoting and interacting with lecturers, members and other science and engineering related accounts. By following our account, you can see tweets from upcoming and past lecturers, follow their progress, and ask questions about their research. You can see pictures from our events, and read information about upcoming lectures. Then you can 'like' the tweet to show your appreciation for the content, 'retweet' it, so it can also be seen by all of your own followers, or 'reply' to it with a message of your own. The more members we have on Twitter, the more content we will have to share. Why not tweet an interesting fact or some new information that you have learnt from one of our lectures? To find out how to set up your Twitter account see the detailed instructions on the Members' page of the website.

Lastly

You will receive your AGM papers with this mailing. They will be:-

1. Your calling notice and advice for the AGM
2. Minutes of the AGM in May 2015
3. This letter as your Chairman's report
4. Notice for the Summer Supper
5. Notice for impending visits

May I remind you that the AGM will begin at 7.30pm and will end at or before 8.00pm. It will precede the May lecture 'Taking the Pulse of the Sun'. This will be delivered by Professor Yvonne Elsworth, University of Birmingham and I for one look forward to it. See you there.

Carol Hannam
Chairman