

CHAIRMAN Paul Bettson

# Lichfield Science & Engineering Society

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PRESIDENT
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### **WELCOME**

Welcome to my last Christmas Newsletter. I am able to report that the membership stands at 327 fully paid up members. Annually we are seeing about a 10% turnover of members, with the 10% leaving mainly due to age or having joined only in the short term. May I pass on our Treasurer's appreciation of prompt payment of subscriptions and the generous donations to the Education Fund.

### **MONTHLY LECTURES**

Our September lecture was attended by 105 members and 7 visitors totalling 112 and was given by Dr. Tom Breeze from the University of Reading. The lecture concentrated on how natural ecosystems services such as pollination by bees and other insects provide great benefits to modern agriculture yet are degraded by modern agriculture's practices and policies.

The October lecture was given by Professor John Byant, University of Exeter and was attended by 135 members, 2 student and 17 visitors, making a total of 154 in the audience. The lecture covered the developments in biological systems for the manufacture of combustible fuels, questioning the practicability and ethics of these.

James Melville from the WSP Group and John Barker from AECOM delivered the December lecture in the main auditorium to 129 members, and 28 visitors. It was good to see a number of students among the total. John gave an overview of the whole Crossrail project and James concentrated on the construction and engineering solutions at Bond Street Station. This project is the largest civil engineering project being undertaken in Europe at the present time.

# THE 2013 DARWIN MEMORIAL LECTURE

The 24th Erasmus Darwin Memorial Lecture was given by Professor Anthony Ryan, Pro-Vice Chancellor of the Faculty of Science at the University of Sheffield. The event was very well attended and the audience included 130 students from local schools. The lecture, Project Sunshine, focused on harnessing solar power to provide sustainable food and energy for an ever increasing global population. The energy in one hour's worth of sunlight would meet the planet's food energy needs for a year.

# SCHOOL'S LECTURE

The School's lecture is to be given in January by Roma Agrawal who delivered last year's December lecture on constructing the Shard. This promises to be another inspirational lecture for the invited local students.

## **DISCUSSION LUNCH**

We held the 14th in our series of Discussion lunches on Thursday 21st October in Darwin House. Dr Jeremy Duncan Brown led the discussion after lunch on "Managing your Own Death". Details of the next one are included with this mailing. These lunches have always proved popular so do apply early.

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### ANNUAL DINNER

This was held at Aston Wood Golf Club on October 24th and attended by 88 members and their guests. This year's dinner saw the inauguration of our new President, Professor Rex Harris. Sahar Al-Malaika, our outgoing President, presented Rex with his Chain of office. In his acceptance speech Rex emphasised the importance of science education and of the necessity to increase public awareness of the effects of climate change. Our thanks to Sahar, who over the last two years has been a great supporter of the Society, attending as many lectures and events as possible with her husband Sam, and assisting the committee.

## **VISITS**

Arranging the Society's trips to Pilkington Glass has been eventful. A very enjoyable first visit last year was followed by the postponement of a second when the float glass line was put on hold owing to lack of orders. The rearranged visit in September, organised by Tim Sims, was attended by 20 Members who saw not only the float glass line reported in an earlier Newsletter but also the new £38M coating works. This uses large resonant cavity magnetrons to coat sheets of glass by sputtering under high vacuum and LSES were privileged to be the first visitors to this facility. Unfortunately shortly after our visit the float glass line was closed down but there is no suggestion that LSES was in any way responsible.

In October 18 Members visited Ball Packaging. They produce in Wrexham about a fifth of the European requirement of aluminium drinks cans, which means making seven million a day, every day. The numbers and speed are mind-boggling; each paint line coats five cans a second. Fortunately a video explained the entire production process at a more understandable rate. As with all our visits our hosts were very hospitable and our guides very knowledgeable and patient.

The schedule of visits for the early part of next year is included with this mailing. Please apply early, especially for the January one, which we expect to be very popular.

Not one of our arranged visits but a venue to be borne in mind – several Members attended the inaugural meeting of the Friends of Sandfields Pumping Station, a sadly neglected Lichfield landmark. All those present wished the new group well in their endeavours.

## IN CLOSING

My thanks go to the committee for all the hard work that they have done to organise all the events and keep the administration running smoothly.

I wish you all a pleasant and peaceful Christmas.

Paul Bettson Chairman