



# NEWSLETTER

**RETIRED CHARTERED  
ENGINEERS ASSOCIATION  
WORTHING**

**Hon. Secretary: S. Oliver, Elphin, NorthDrove, Angmering, BN16 4JJ ☎ 01903 787116**

## FORTHCOMING EVENTS

- 5th Jan Tuesday **Talk** - "Code Breaking"  
by J. Steel, guest, at 2.30 p.m. Field Place
- 6th Jan Wednesday Coffee - at Albion Inn, 110 Church Road, Hove
- 12th Jan Tuesday **Visit** to Pirelli, Southampton, at 2.30 p.m (see page 6)
- 19th Jan Tuesday Committee meeting, 2.15 p.m. Field Place
- 21st Jan Thursday Coffee - at The Spotted Cow, Angmering
- 28th Jan Thursday Coffee - with Partners at Beach Hotel, Worthing
- 3rd Feb Wednesday Coffee - at Albion Inn, 110 Church Road, Hove
- 9th Feb Tuesday **Talk** - "Explosion protection in motorway tunnels" by  
D. Shepherd, guest, 2.30 p.m. Field Place
- 11th Feb Thursday **Lunch** - Northbrook College 12.00 for 12.30 p.m.(see page 6)
- 18th Feb Thursday Coffee - at The Spotted Cow, Angmering
- 25th Feb Thursday Coffee - with Partners at Beach Hotel, Worthing
- 3rd Mar Wednesday Coffee - at Albion Inn, 110 Church Road, Hove
- 9th Mar Tuesday **Talk** - "Aircraft systems"  
by J. Apted, member 2.30 p.m. Field Place
- 16th Mar Tuesday **Visit** to Daewoo technical centre, Worthing at 2.30 p.m  
(see page 7)
- 18th Mar Thursday Coffee - at The Spotted Cow, Angmering
- 22nd Mar Monday Copy date for next Newsletter
- 23rd Mar Tuesday Committee meeting, 2.15 p.m. Field Place
- 25th Mar Thursday Coffee - with Partners at Beach Hotel, Worthing
- Every Monday Coffee at Laing's Arcade Cafe, Montague Street, Worthing

Coffee mornings commence at 10.30 a.m., except at The Beach, which is from 10.45 a.m.

## Membership

We welcome the following new members :

<p>1998 <b>PAFFETT, J.A.H.</b> F.R.I.N.A., Hon.F.N.I., F.R.S.A., R.C.N.C.</p> <p>1 Chestnut Avenue, Chichester, PO19 4QD (01243 527904)</p> <p>1937-67 Admiralty: design, construction, maintenance of warships, ship structural research, teaching at Royal Naval College, Greenwich. 1967-81 Dept. of trade &amp; industry : head of ship division, National Physical Laboratory. 1983-96 Engineering Council nominations committee</p> <p><i>Interests:</i> Making things, Sculpture, REMAP</p>	<p>1998 <b>SMITH, J.S.</b> M.Sc., M.I.C.E., M.I.Struct.E.</p> <p>47 Wroxham Way, Felpham, Bognor Regis, PO22 8ER (01243 864729)</p> <p>1960-65 Air Ministry works directorate. 1955-60 &amp; 1974-78 Sir Wm Halcron &amp; Ptnrs - Airports. 1965-74 Port Authority of New York &amp; New Jersey - Airports. 1978-85 I.C.A.O. United Nations - Botswana - Airports</p> <p><i>Interests:</i> Golf, Choral singing, Bridge</p>
<p>1998 <b>MEECHAM, A. G.</b> M.I.E.E.</p> <p>40 Hills Place, Horsham, RH12 1XT (01403 253384)</p> <p>1943-48 Apprentice BTH Willesden. 1950-53 LCC Technical Asst. 1953-70 BGA /CEA/CEGB 4th Asst. through to Sen. Asst. 1970--81 Engineer, transmission construction, SE region CEBG, Senior Asst.Eng.Planning. 1982-85 SE region BEI, consultant engineer, London/Jakarta.</p> <p><i>Interests:</i> Walking, Music, Crosswords, Primary school governor.</p>	<p>1998 <b>KAY, T.</b> M.I.C.E.</p> <p>27 Lansdowne Road, Angmering, Littlehampton, BN16 4JX (01903 850631)</p> <p>Hosband &amp; Co. consulting engineers. Newsoms, timber engineers. York City council. Beves, timber engineers. Brighton University, school of architecture</p> <p><i>Interests:</i> Cycling, DIY, Drawing, Painting, Local authority work.</p>
<p>1998 <b>BUCKROYD, B.</b> M.A., M.I.Mech.E.,</p> <p>6 Fosters Close, East Preston, Littlehampton, BN16 2TL (01903 784926)</p> <p>1954-70 English Electric Co. 1970-86 Head Wrightson &amp; Davy McKee 1986- Consultant to ODA &amp; EC</p> <p><i>Interests:</i> Travel, Gardening</p>	
<p>1998 <b>MOLE, A. C.</b> B.Sc.(Eng.) M.I.Mech.E., A.M.I.E.E., F.I.O.D.</p> <p>2 Second Avenue, Worthing, BN14 9NX (01903 209122)</p> <p>Apprentice BTH Co. Rugby. Project engineer Unilever plc. Engineer &amp; production manager Tube Investments plc. Project design engineer Trawsfynydd nuclear power station APC Ltd. Executive director Morganite Carbon Ltd. Managing director MBM (technology) Ltd. Various non-executive subsidiary board positions within the Morgan Crucible group.</p> <p><i>Interests:</i> Photography, Walking</p>	<p>1998 <b>OLLEY, J.W.</b> M.I.Mech.E.,</p> <p>10 Walters Mead, Ashstead, KT21 2BP (01372 278131)</p> <p>1960-63 Davey Paxman Ltd. Metalforming Methods Engineer. 1963-70 Moler Products Ltd. Works &amp; Plant Engineer. 1970-76 Shell Mex-BP Ltd. Technical Sales Engineer. 1976-95 Shell UK Ltd. Technical Buyer/Materials Manager managing supply of equipment &amp; materials to North Sea Oil &amp; gas facilities.</p> <p><i>Interests:</i> Classic cars, Caravanning, Walking</p>

**C.H. Forster** has moved to: 14 The Swallows, St Catherines Road, Littlehampton BN17 5HJ.  
Tel: 01903 721442.

**Malcom Leak** is unable to continue as a member of the committee; to replace him and fill the other vacancies, the following members have agreed to be co-opted onto the committee: **G.D. Mathias, D. Matthews** and **K.J. Wheeler**.

## **Stirring the cup**

From the reign of Charles II to the early Georges, we are told, the London Coffee House was the gathering point for those seeking news, business, or relaxation. "Every respectable citizen had his favourite House at which he would be found at known hours .... The universal liberty of speech of the English nation was the quintessence of Coffee House life".

A modern version can be found every Monday morning at Laings in Worthing and monthly in Angmering and Hove. Strangers, attracted by the hubbub are often amazed at the range of topics being discussed - from politics to plastics, cricket to computers, gardening to gyroscopes - to name but a few. There cannot be many topics of which at least one of our members hasn't some expertise.

I have found these brief, informal contacts with fellow members over a cup of coffee refreshing and stimulating. Why is it, I wonder, that, though membership has risen in recent years, attendance at coffee mornings has fallen? In Hove, for example, now that two of our senior members, John Gurney and Henry Philp, are unable to come, absence of one or two of the "regulars" makes a meeting barely viable. Should we try another venue? The gathering in Brighton was moved to Hove many years ago because of parking problems, and one arranged in Steyning proved unattractive. I recall reading in one of the Institution Journals some time ago that an Engineers' Club in the Brighton area was a distinct possibility; there has since been an ominous silence.

I'm sure the Committee would welcome your comments on the subject. Better still, how about making a minor alteration to your activities, so that you can drop in, have a coffee, and help set the world to right, or perhaps indulge in a little nostalgia.

*Ernest Ayling*

**Electrical privatisation** - talk by Dr. Jackson , guest, at Field Place, Tuesday 6th October, 1998 at 2.30 p.m.

Electrical Privatisation was the uninspiring title of a talk, for what transpired to be an particularly interesting and comprehensive presentation of the subject. The paper was given by Dr. A.F. Jackson, a long serving member of SEEBOARD, who was responsible for advising the chief executive and directors, on privatisation strategy.

Prior to 1990 the electrical industry under nationalisation was a very complex structure covering generation, national distribution, plus local distribution and the sale of electricity through Area Boards. To ensure successful privatisation of the industry, a major

reconstruction was essential. All previous privatisations had been comparatively straight forward, in that they went ahead in precisely the same form in which they existed under nationalisation. Competition has been introduced wherever possible, with a Regulator in overall control.

One major change that has come about within the industry is that now all key decisions are driven by customer needs, having gone from inward looking to outward looking. The most fundamental difference which privatisation has brought, is in the raising of capital, whereby this is now done direct with banks or finance houses, as and when required. Under nationalisation, implementation of improvements requiring capital expenditure was entirely dependant on the policy of the government in power at the time.

Under privatisation the regional electricity companies have to conform to a Code of Practice and to assess the degree of compliance that they are achieving, the statistics thus produced are reviewed by the Regulator every three months. This form of control ensures that the end user is getting a fair deal. In addition there are pretty powerful forces in the form of Consumer Committees in each area, who periodically meet up with the Regulator.

For the past eight years the competition has not been between electricity and gas, but between all the various electricity companies who are all seeking to be 'the best company'. This is readily apparent through league tables and share prices.

We are now seeing considerable expansion of the various privatised companies, in that they are now going outside of electricity supply. Their activities are now spreading into generation, gas and at the same time expanding their contracting operations. In fact it can now be said that the industry has gone full circle, since this is the state of affairs that existed prior to nationalisation.

Nationalised industry prices were on a cost plus basis and therefore Privatisation has been able to achieve staggering price reductions of up to 25% in real terms. Furthermore, it was commonplace for customers to be disconnected for not paying their bills. This figure at one time reached 300,000, but the total last year for England and Wales was down to 350 and in the SEEBOARD area nobody has been disconnected in the last 3 years.

Probably the most surprising change that privatisation has brought about is in ownership, many of the Regional Electricity Companies now being in foreign hands.

*Stan Renew*

**Visit to LEC Refrigeration, Bognor Regis** on Tuesday, 10th November, 1998 at 2.30 p.m.

Twenty-three members, including several new members, visited LEC Refrigeration for a very interesting and instructive afternoon on 10th November. Our main host was George Hodgson, the Production Engineering Manager; George mentioned that his late father was a member of the RCEA, so he knew quite a lot about us.

The visit opened by George outlining the history of LEC. Formed in 1940 as the Longford Engineering Co. (its premises were in Longford Road) by Charles Purley, a Bognor fishmonger, to produce munitions, they made their first refrigerator in 1943. In 1946 they moved to their present site and concentrated solely on refrigeration under the brand name LEC, which became the company name.

At its peak, the company was turning over £52m. p.a., with a workforce of 2,000. The present turnover is about the same, with a work force of 1,000. At one time they had a factory in France and licences in several developing Commonwealth countries.

After Mr. Purley's death and, tragically, that of his son, who was being groomed for succession, the company was sold to Sime Darby, a Malaysia based conglomerate with many and diverse interests, from banking to engineering. LEC remains to-day as part of the Sime Darby empire, and they have a substantial managerial influence on LEC.

For our tour of the works, we were divided into five groups, each guided by a senior production manager, making for refreshingly small groups. We were conducted round the whole of the new factory, where the most modern concepts of mass production are used, with expressions like JIT and Kaizan being freely sprinkled in the descriptions given to us. The factory was specifically built and equipped to produce a new range of "up-market" domestic refrigeration appliances, sold under the brand name "Era", intended to compete head-on with the likes of Bosch. Eventually it is intended that the whole of the company's domestic refrigeration appliance manufacture will be concentrated in the new factory, working on a "three-shift" basis.

Some impressive, and apparently costly, plant has been installed for forming the refrigerator casing. Colour coated steel is received in rolls and is fed into both roll-forming and bending lines. The inner plastic lining is vacuum formed, whilst door insulation is applied and cured in a large heat-controlled vertical carousel.

Assembly is carried out in team cells where all members of the team can carry out all operations and they regularly change tasks, as determined by the team leader, who is also normally part of the working team. The teams, and all other operators, have regular meetings to review progress, both in regard to unit times and quality, to which they make very substantial inputs. Final testing is fully automated, and by the use of statistical method, the time taken to establish "pass" or "fail" has been dramatically reduced to periods measured in seconds.

Perhaps the most impressive part of our visit was the fact that so few staff were needed, coupled with the in-depth knowledge of the process shown by the plant operators, who seemed very enthusiastic about their work and keen to describe their work to us.

Altogether a very enjoyable visit.

*Richard Norton*

**Code breaking and its effect on World War II** - Talk by J. Steel, guest, at Field Place, on 5th January, 1999.

The talk will describe the early work undertaken by Alan Turing and others at Bletchley Park in breaking the code of the Enigma machine that was widely used by various German organisations. Reference will also be made to the development of Colossus, the world's first "computer" and the Purple machine, the Japanese equivalent of Enigma. This is a fascinating insight of what went on during the second world war for the Allies to keep one step ahead of the Axis Powers!

**Visit to Pirelli submarine cable works, Southampton** on Tuesday, 12th January, 1999 at 2.30 p.m.

Pirelli's submarine cable works are located on the bank of Southampton water which enables long lengths of submarine cables to be loaded directly on to the laying vessel. The works were built originally to manufacture some of the cables required for the England/France cross channel 2000MW link. Orders for submarine cables are "lumpy" so there is no certainty that the works will be fully in operation for our visit.

Visit details and a map with directions will be available at our next meeting on 5th January, 1999. For those unable to attend the meeting please contact G.H. Picken direct.

The party is limited to 12 members. Please return the reply slip on page 9 to G.H. Picken by 5th January, 1999.

*Geoff Picken*

**Lunch at Northbrook College** - Thursday, 11th February, 1999 at 12.00 for 12.30.

The college is situated on the Littlehampton Road at the roundabout with Goring Street which leads from Goring by Sea railway station.

The cost of the lunch is £7.50 per person for the three course meal and coffee. Drinks are available at extra cost. After lunch there will be a presentation of the work at Northbrook College.

The numbers are limited to 40 persons. Please return the reply slip, on page 9, with payment, to S. M. Butler, by 11th January, 1999.

*Stan Butler*



**THE INSTITUTION  
OF ELECTRICAL ENGINEERS FARADAY LECTURE 1998/99**

presented by University of Kent, Canterbury, Thursday, 4th February, 1999 at The Dome, Brighton. Performances at 10.30 a.m., 2.00 p.m. and 6.00 p.m.

As the end of the millennium approaches, the merging technologies of communications and computing are bringing about a revolution in everyday life. The familiar mobile phone, CD player and fax machines are being joined by digital broadcast radio and TV offering many more channels and much clearer sound and pictures.

But why is the digital transmission of information, be it sound or pictures, so much better than the earlier forms of analogue transmission? How does it work and what does it mean for you and me?

By tracing the development of the telephone from its humble beginnings, based on the discoveries of Faraday, to the development of modern global telecommunications networks, we will explain the basic principles of digital communications and how the present systems operate. We will show how the talented engineers of today are working together to develop the systems of the future which will be part of all our lives in the brave new Digital World.

For tickets, apply to: Dr. Mark Jones, School of Engineering, University of Brighton, Lewes Road, Brighton BN2 4GJ. Lecture tickets are **free** but please send a stamped addressed envelope.

The 6 p.m. Lecture is followed by a dinner, the tickets for which are £25 each. If you (and your guests) would like to attend the dinner, please apply to Mark Jones, as above, and enclose a cheque for the appropriate amount and made payable to the IEE Sussex Centre Entertainment A/c.

**Visit to Daewoo** , Lyons Park, Worthing  
on Tuesday, 16th March, 1999 at 2.30 p.m.

We shall visit two sites; the first at Lyons Park consisting of the Design centre. Meet at the main entrance of Daewoo by 2.30 p.m. after leaving your cars in Sainsburys' (or B & Q) car park.

On completion of the Design centre visit, we shall drive to the Industrial estate off Dominion way to visit the Prototype and test centre.

The visit is limited to 20 members

Please return the reply slip on page 9 to R.W.V. Norton, by 9th March, 1999.

## **Spring Break to France** 17th to 21st May, 1999

Details of the Spring Break are given below for those who missed the October Newsletter.

As you may have heard from the media, the ferry from Newhaven could close; in that case we shall use the channel tunnel. This gives extra time in the coach, but the overall journey times will be similar.

**For those members intending to participate in the Break and have not yet booked with Woods, it is now time to do so.**

The 1999 5 day, 4 night Spring Break will be based at the Hotel Mercure Rouen Champs de Mar. All bedrooms have private bathrooms, colour TV, telephone and hairdrier.

Throughout the tour use will be made of a 49 seater continental touring coach with air suspension, reclining seats, toilet and washroom. At the beginning of the tour members will be picked up from their homes by taxi and taken to meet the coach. At the end of the tour members will leave the coach and be returned to their homes by taxi. The Woods driver will act as courier for the duration of the tour.

The cost of the tour (excluding insurance) is £288.00 per person sharing a twin room. This cost is based on 30 fare paying passengers. There will be single room supplement of £80. If the number of passengers does not reach 30 persons, then a surcharge will apply. The tour cost includes door-to-door service; 4 nights half board Dinner and Buffet Breakfast; guided tour of Rouen; entrance to Monet's garden, Jardins d'Angelique and Le Clos de Coudray.

Travel Insurance is mandatory for Woods will not accept a holiday booking unless a person is adequately insured. Woods' Insurance is £11.50 per person; which is in addition to the basic £288.00 cost of the break. Should you already have adequate travel insurance, then you will need to advise Woods when you book for the tour the name of your Insurance Company.

## **Itinerary**

### **Day One**

An early departure to catch the 8.45 a.m. ferry from Newhaven to Dieppe and then to Rouen, arriving at our hotel, close to the River Seine, in time for dinner.

### **Day Two**

A morning in Rouen with a guided walking tour, visiting the Cathedral and the old part of the town. After lunch, travel to the Jardins d'Angelique, offering a lovely display in the grounds of a Norman Manor house.

### **Day Three**

A journey to Giverny, to visit Monet's house and gardens. There will be time for lunch at Giverny before a leisurely return along the Seine, stopping at Les Andelys.

### **Day Four**

Travel north to the Clos du Coudray, offering a fine collection of over 6,000 plant species, as well as riverside gardens, rockeries and exotic plants. A convenient stop for lunch will be made before proceeding to the afternoon visit.

### **Day Five**

A visit to Honfleur in time to have an early lunch and investigate Honfleur before returning via the Pont de Normandie to Dieppe to catch the the 3.45 p.m. (local time) ferry to Newhaven.

To: G.H. Picken, 2 Faircox Cottage, Faircox Lane, Henfield, BN5 9PD Tel: 01273 493600

I wish to participate in the visit to **Pirelli, Southampton** on Tue 12 Jan 99 at 2.30 p.m.

Full Name .....(Block capitals)

Address .....  
.....

Phone No..... **Applications by 5th January, 1999**

**Car sharing** I can offer....seats from.....I would like a lift from.....

=====

To: S.M Butler, 250 Harbour Way, Shoreham, BN43 5HZ Tel: 01273 464527

I wish to participate in the **Lunch at Northbrook College** on Tue 11 Feb 99 at 1200hr

Full Name .....(Block capitals)

Address .....  
.....

Phone No..... **Applications by 12th January, 1999**

My guest/s will be.....

Number of places.....I enclose a cheque for ..... payable to RCEA

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To: R.W.V. Norton, 106 Wallace Avenue, Worthing, BN11 5QA Tel: 01903 242204

I wish to participate in the visit to **Daewoo Technical Centre** on Tue 16 Mar 99 at 2.30 p.m.

Full Name .....(Block capitals)

Address .....  
.....

Phone No.....

**Applications by 9th March, 1999**