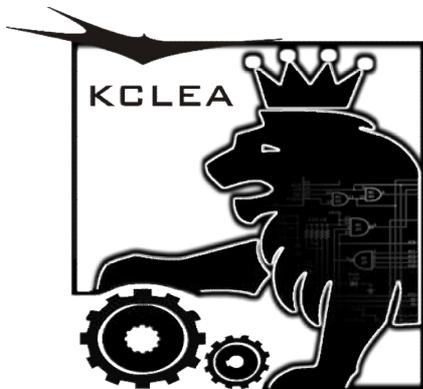

THE KING'S ENGINEER BULLETIN

Autumn 2017



AGM 2017

KCLEA
Annual General Meeting
Formal Notification

Thursday 23rd November 2017 – 6pm



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AGM 2017

KCLEA

Annual General Meeting
Formal Notification

Thursday 23rd November 2017 – 6pm
Room K2.40 Strand Campus



This is an exciting time for Engineering at King's College London as approval for the redevelopment of the area under the Quad as the new home for Engineering has been given and will be operational for the 2020 intake of undergraduates.

I would like to take this opportunity to remind all Engineering Alumni that they are automatically members of the KCLEA and are most welcome to attend the AGM to catch up with old friends and progress. This is an interesting time for new blood to join our committee, meetings are informal, so please contact our President Graham Raven (g.raven@sky.com or 01295 971086) if you would like to know more.

Agenda

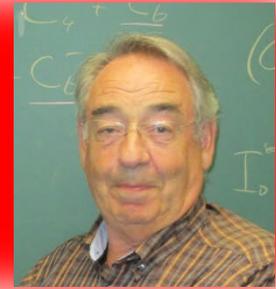
- 1) Apologies for absence
- 2) Minutes of the 2016 AGM
- 3) Matters arising
- 4) Officers reports
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 - c) Communication with members
- 9) KCLES
- 10) Bursaries for undergraduates
- 11) KCLEA Medals
- 12) The 13 Club Trophy
- 13) AOB

- Chris Bowden, Hon. Secretary KCLEA

After the formal meeting we will adjourn to the "Savoy Tup" for drinks, an informal buffet and general discussion and socialising.



**A message from
the President**
by Graham Raven



We have been encouraged by the enthusiasm at the highest level in College for the re-establishment of undergraduate teaching of General and Electronic Engineering, not forgetting that Bio-Medical Engineering has prospered in the meantime, and look forward to a major expansion in September 2020. We met with Vice Principal Evelyn Welch in the spring and she confirmed that College approvals had been obtained and the re-development under the Quad has planning approval. There will be an update at our AGM.

Professor Reza Razavi who is Vice President for Research and Innovation joined us for our Annual Lunch and gave insights into how the College sees the future. Professor Simon Parsons who is spearheading the expansion of Engineering also attended and you can read about the plans elsewhere in the Bulletin.

Your committee has decided to concentrate our efforts into three events each year, AGM, the KCLEA Lecture and the Annual Lunch. I sense this is working as the three lectures have been given to full houses, the lunch continues to be popular and last year's AGM was better attended than we had come to expect. I look forward to a similar response this year when we have moved it to a Thursday (23rd November) in response to comments about London on Friday nights. Retreating to the Savoy Tupp makes the event more appealing.

At this time of transition to a bright future I would encourage anyone interested in being more involved to join our committee and please contact me for more information (g.raven@sky.com).

We are aware that communications are increasingly important if we are to retain and grow our outreach so if you can help here I would be particularly delighted to see you at the AGM.

Our lecture next spring will be given by Bill Grose with tunnelling as its topic. With the opening of Crossrail we expect this to have a wide appeal outside engineers as our lectures are chosen to demonstrate to a wider audience the value of engineering to all.

My thanks to all who have supported us and the committee for their work.

Graham Raven
President KCLEA



A message from the Vice Dean (Technology) NMS *by Professor Simon Parsons*



Work on the expansion of Engineering at King's is continuing. Key to this development is the refurbishment of the Quad building, and the design and planning for this is well underway. Disappointingly, the complexity of carrying out the necessary building work in the middle of a busy campus means that the building will not be complete until 2020, and so we currently do not anticipate receiving students into the new Engineering programme until September 2020 (we had previously been aiming for 2019). This delay has not hindered other aspects of our work on the expansion. The curriculum for the new programme is in the final stages of College approval.

The first new member of academic staff for Engineering, Dr Yansha Deng, has just started; we will welcome another new staff member in October; and we have begun the search for a Head of Engineering.

Finally, we expect over 100 undergraduate students to be joining our Electronic Engineering programme in the next few weeks, a significant increase over last year's numbers.



Excavation of old vaults in the Quad 1949



Installation of Somerset House Bridge (2012)



KCLEA Annual Lecture
Tunnels and Tunneling
by Eur Ing Bill Grose



Wednesday 21st February 2018 in the Kevin Nash Theatre

Tunnelling has recently been recognised as an exciting and ‘cool’ aspect of Engineering, with much underground work taking place in and around London and other major cities across the world.

This talk takes us from the early days of industrial revolution tunnelling to the intricacies of modern tunnel boring machines and techniques, and then into what the future might hold, exploring how tunnellers’ know-how developed from the early empirical methods to the appliance of science and now information technology and data management.

There are many uncertainties and dangers lurking underground and failures can be dramatic and sometimes fatal. Learning from past failures is a significant part of a tunneller’s education. The speaker will describe the forensic investigation of recent collapses across the world and key lessons the industry has learned from them.

Tunnels are often at the centre of socio-economic considerations, and sometimes controversy, on major infrastructure projects and we will look at why that is, and how resolution is reached (or not).

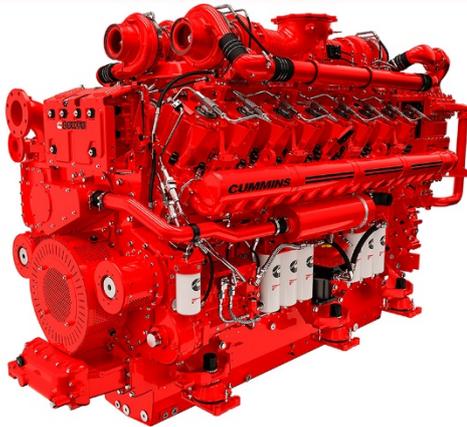
Finally, we will look at the global trend of increasing use of underground space in general – sometimes for security or environmental control, sometimes because society is simply running out of space.

Eur Ing Bill Grose BSc(Eng) AKC CEng FICE read civil engineering at King’s from 1975 to 1978 as a mature student, studying under Kevin Nash amongst others, graduating with a first class degree and directly joining Ove Arup & Partners. He stayed with Arup until retirement in 2004, with his career developing from geotechnical engineering into tunnelling, major project leadership, and strategic consulting, working all over the world.

Bill was a director of Arup for 20 years; he started and led Arup’s global tunnelling business and spent five years leading Arup’s design of London’s Olympic Park, followed by two years as part of a strategic research team in HM Treasury. Since 2004 Bill has run his own consultancy, providing advice to the tunnelling and infrastructure industry, with clients including High Speed 2, Transport for London, Thames Tideway, Swiss Re, Munich Re and Deloitte. Bill has an international reputation for forensic investigation of tunnel failures and was chairman of the British Tunnelling Society from 2006 to 2008.



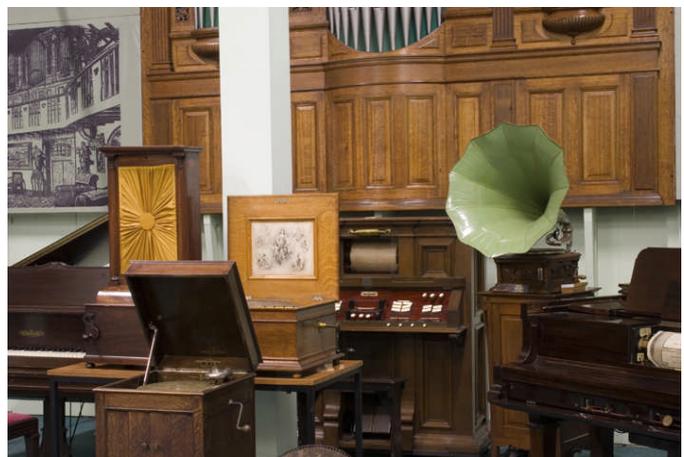
Did you Know ? *King's Engineers* by Keith Newton



Cummins Inc. is an American 'Fortune 500' company that designs, manufactures, distributes and services diesel engines among other things. Its sales were reported as US\$ 19.2 billion in 2014. Until his retirement, Dr Wei-Tze Lyn, a world authority on diesel engine combustion, was Vice-President of research at Cummins. Dr Lyn was a KINGS ENGINEER

The University of California at Berkeley is well known for the strength of its engineering courses, especially geotechnical engineering. One of the men responsible for this reputation was Dr Harry Bolton Seed who joined the university in 1950 and spent the next 40 years of his career there. In the 1960s he introduced the new field of geotechnical earthquake engineering and is recognised throughout the world as the father of this important field. In recognition of his expertise he was awarded many international distinctions, one of which was the first award of the Kevin Nash Gold Medal of the International Society for Soil Mechanics and Foundation Engineering. Dr Harry Bolton Seed was a KINGS ENGINEER and a Fellow of Kings' College.

If you have been to the Musical museum in Brentford high street, you cannot but be amazed at the instruments gathered there, particularly the collection of 'Player Pianos'. The Musical Museum was originally called the British Piano Museum and housed in the redundant church of St George further along Brentford High Street from 1963. The museum was the brain child of Frank W Holland MBE. Frank was a KINGS ENGINEER.





KCLEA Activities *Engineers' Lunch Report* by Ted Willis



The Annual Engineers' Lunch was held Saturday 10th June, during the Alumni Weekend. This year the lunch was held in the Terrace Café, part of the Strand Campus overlooking the Embankment. The Terrace Café would be an ideal viewing platform for the proposed Garden bridge across the Thames but the latest is that construction of the proposed bridge has now been cancelled.

About 50 KCLEA and KCLES members and guests attended the lunch. The guests of the Association included Professor Reza Razavi, (*Vice Principal, Research and Innovation*) at King's College London with a high reputation in Bio-Medical Engineering, Dr Elizabeth Sklar, (Head of the Centre for Robotics Research) and Professor Simon Parsons (Vice Dean, Faculty of Natural and Mathematical Sciences)

In a short address, Professor Reza Razavi gave an update of the plans for the development of Engineering Teaching at King's and the plans for locating the department in the redeveloped area under the 'Quad'. The Quad's redevelopment is expected to be ready for the Autumn term in 2020

The KCLEA Lunch has been held on both the Friday and Saturday of Alumni weekend in the past. Last year's Lunch was held on the Friday to enable it to be held in the newly refurbished Great Hall and for the Principal of King's College London, Professor Ed Byrne to attend.

Your Committee has been considering alternatives to the current arrangements in order to suit the majority of members interested in attending the lunch. We would welcome any suggestions concerning the timing and venue for our future annual get-together over a meal.



The (good) old days !



KCLES Activities *President's Report* by Ross Henry



While planning the year ahead. I have to look back on the one that we are just leaving. Headed by Annemarie Heijna, we saw KCL Engineering Society go from strength to strength. Starting off the year out at the Fresher's Fairs, during which we had great interest. Not just from our Engineering peers but from students throughout Kings. Combine this with a presentation at the fresher's induction. We saw a large turnout at our icebreaker event at Primrose Hill. Here we released the buddy scheme, allowing new students to be paired with 2nd and 3rd years, which helped them to accelerate their adjustment to the course, university and city.

KCLES have collaborations with other societies within the NMS community. One noteworthy social, was our repeated Escape Room Event. During the evening, participants, of this sell out event, had to solve their way out of a 4 room puzzle. One room for each area of NMS. The last hurrah for the year, was the long awaited Boat party, after the event's success last year. Collaborating with other societies, NMS student travelled down the Thames in style. We plan to continue with this event again this year.



Along with this throughout the year we also hosted a number of academic talks, form members throughout both departments. There was also an engaging talk from Isabelle Duvaux-Béchon, from the European Space Agency, and Simon Whalley, of the Royal Aeronautical Society. This was hosted along side KCL European Society, to discuss the "Future of European Air and Space Cooperation".

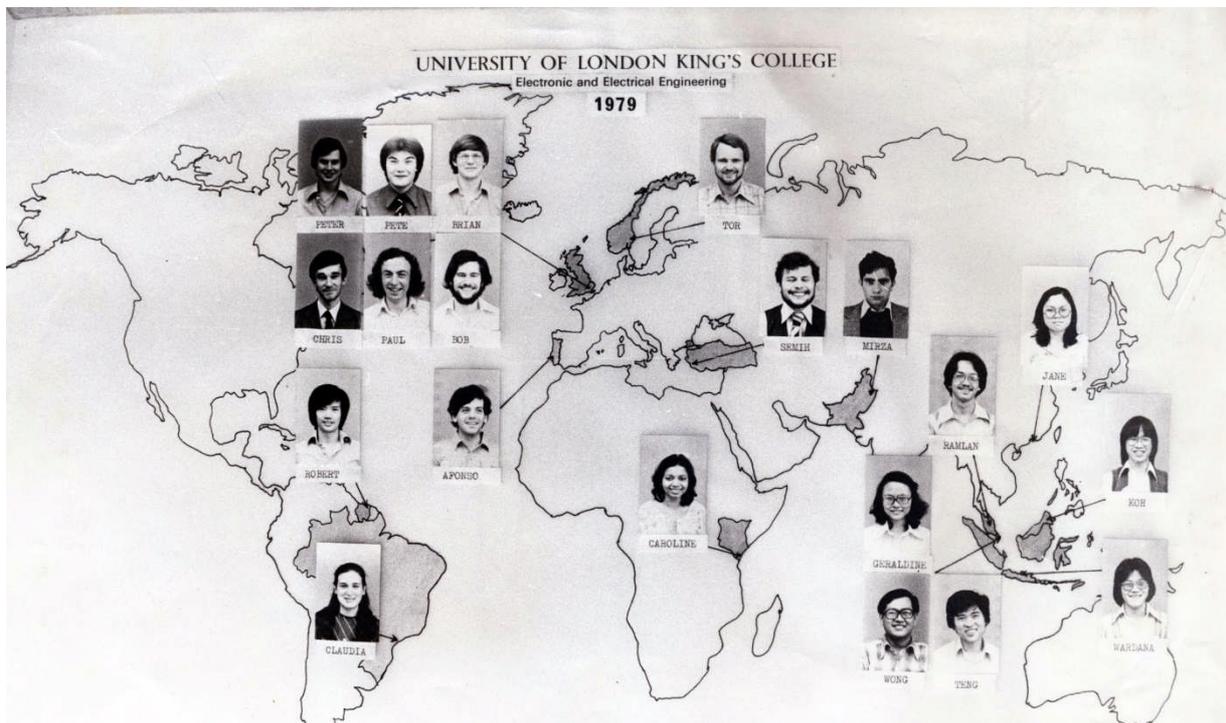
Our new committee have been working throughout the summer, to ensure that we continue with the wonderful momentum from last year, especially with larger than ever cohort of students walking though our great halls for the first time. We have already started communication with other STEM societies within and outside of KCL about joining forces to create both social and academic events. We are also in communication with a number of engineering companies across the country, so we can deliver the best possibilities of internships and graduate placements for our members. This, along with many other events in the pipeline, there is no saying where KCLES could be this time next year.



Where are they now ? *King's Engineers*



Claudia Vargas (Electrical Engineering, Class of 1979), very kindly sent me this map of some of her colleagues that they produced on graduation. Engineering at King's always attracted top students from around the world.



Why not use this Bulletin to contact lost colleagues ? The KCLEA are always interested in hearing from our members with stories of what they are doing now or tales of past adventures at King's.



The 13 Club and Trophy

*A call for nominations
by KCLEA Committee*



The '13 Club' was formed by a group of King's Engineers from the 1928-32 period who during their College years shared many adventures with a growing spirit of comradeship. To mark and celebrate their friendship these 13 Beers devised a mechanism by which to pass on the baton to future generations of King's Engineers.

The award criteria 13 Club Trophy has, over the years changed and been broadened to allow the Trophy to be presented to former Engineering students who have made significant achievements in their professional or personal life, have raised the profile of King's Engineering or have given significant service to King's Engineering or the KCL Engineers' Association.

The trophy remains in the custody of the KCLEA but recipients receive a medal as a permanent personal memento.

The Trophy itself is always exhibited at the Trophy presentation and all KCLEA functions.

There is an Open Call for nominations for the award of the 13 Club Trophy which is awarded annually. If you would like to nominate a King's Engineering Alumni for the award please contact the President with a brief description of the Alumni's achievements which you believe merit the award



*Prof Stan Earles presents the 13 Club Trophy
to Dr Norman Borrett (2006)*



The KCLEA Medal



Obituaries

*Engineers who have
sadly died in the past year*

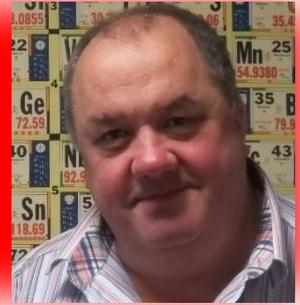


The KCLEA has been notified of the following deaths

<i>Name</i>	<i>Discipline</i>	<i>Class of:</i>
Bryan Batten	Mechanical	1949
Antony Rowbotham	Electrical	1961
John Sharpe	Electrical	1961
Denis Sowter	Engineering	1953



Editor's Oddment by Mike Clode



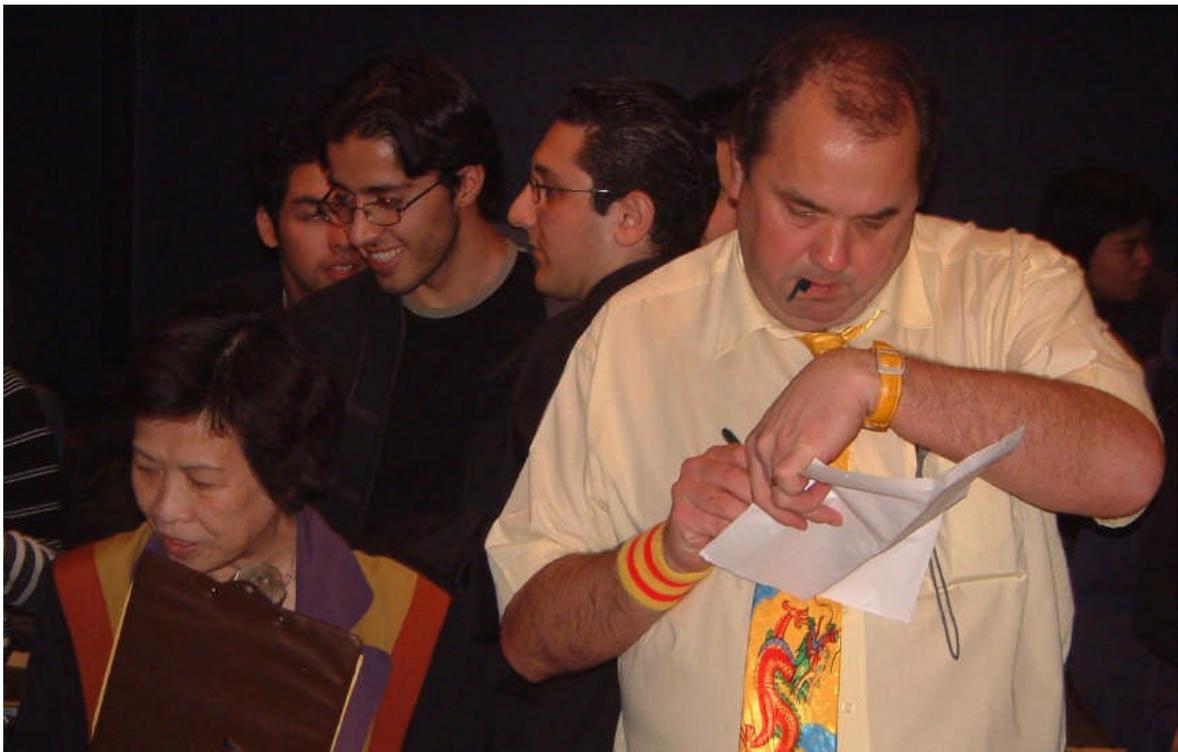
It is hard to believe I have been retired from King's for three years. In the time since the Division of Engineering was closed in 2013, Engineering research has continued within the Department of Informatics and Bio-Medical Engineering has flourished. It is heartening to hear of the positive steps King's are taking to reintroduce the teaching of General and Electronic Engineering. Of course we all wax lyrical of the 'good old days' of Engineering, but today are the 'good old days' for our future King's Engineers.

It was lovely seeing so many students I had lectured to at last year's AGM and I hope to see more of you at the AGM this November.

If you have any contributions to the Engineering Alumni of King's please e-mail me at kclea@clode.net. I am happy to consider contributions of all types, including self indulgent ones. I wish you all the very best and look forward to hearing from you.

I will leave you with a thought.

'To an Engineer, impossible is not a fact, it is just an opinion.'



Me with Soon-Ling judging the Engineers' Christmas competition (2003)