

IChemE London & South East Coast Newsletter

February 2020

Welcome!

We now have an embarrassment of riches locally, with seven universities offering courses in chemical / biochemical engineering: IC, UCL, LSBU, QMUL and Brunel in the metropolis, plus the University of Greenwich and Canterbury Christ Church University in east Kent.

Somewhat challenged by the temporary loss of a permanent London home, we have maintained focus and delivered almost all of our 2019 programme. We even managed to expand upon our series of co-sponsored technical events with the IMechE and IET.

Looking forward, all our 2020 main committee meetings will be held at the Society of Chemical Industry HQ on Belgrave Square (SW1X 8PS) - the dates are listed on the back page. All members are very welcome (but, to get fully briefed, please contact londonsemqsec@ichememember.org beforehand if this will be your first meeting).

Member News

AGM (13 February 2019)

Past-President Andrew Jamieson presented an engaging review of the LNG market, focused on the expected long-term capacity growth due to LNG being a key pillar in the move to a lower-carbon world.



Shell's Prelude FLNG

(The next AGM will be held at the Society of Chemical Industry offices in Belgrave Square on the 5th February. The current IChemE President, Stephen Richardson, will discuss how the IChemE, and Chemical Engineering, can improve focus for the benefit of our key stakeholders. All part of Strategy 2024.

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Meet the Team

Post holders

Keith Hanson - Chair

Colin Tamsett - Treasurer

Pablo Garcia-Trinanes - Secretary

Adriana Vargas-Colwill - Secretary (2018)

Andrea Iliopoulou - Events coordinator

Elisabetta Negri - Newsletter Editor

Maximiliano Jara Fornerod — YMF Chair

Ruben Altamirano-Baker - YMF Vice Chair

Maria Papathanasiou - YMF Chair (2019)

Yasmin Ali - YMF Chair (2018)

Carl Cota - YMF Vice Chair (2018) & Webmaster

Nan Qi - Get Chartered Rep

Member News

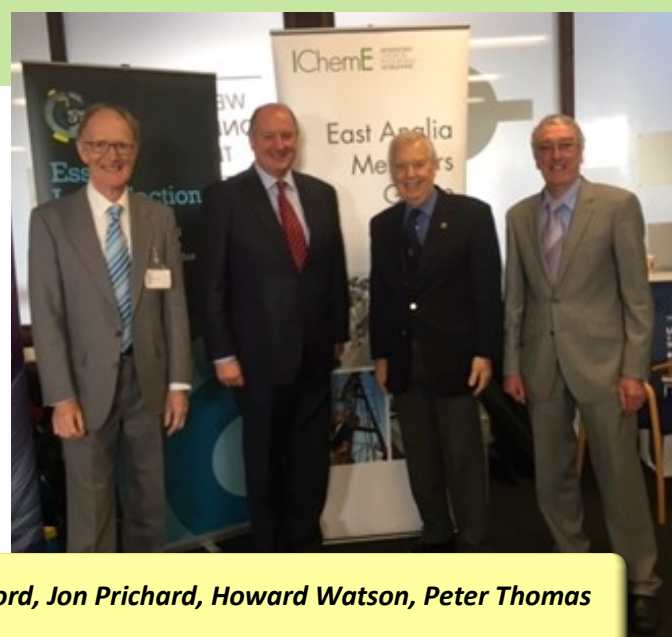
Become a Fellow (08 July 2019)

The first ever Become a Fellow event took place on 8th July at the IOM3 with the presentations of Heather Black from IChemE, and IChemE Fellow members Dame Judith Hackitt (former IChemE President) and Mike Power.

The event was well attended by chartered members from industry and academia who were looking for further information about the process for fellowship, benefits, and the requirements from IChemE. A Q&A session followed each of the presentations, and attendees had the opportunity to mingle at the end of the event.

A copy of the slides used in the evening can be found here: <https://www.icheme.org/media/11850/become-a-fellow.pdf>

The session was generally well received and we hope it has raised encouragement for further applications.



L-R: Alan Stanford, Jon Prichard, Howard Watson, Peter Thomas

Outreach Events

Chemistry at Work (22-23 October 2019)

The basic aim of the event is to promote the chemistry-based professions as a possible career choice to KS4&5 students. The event consists of practising chemists, chemical engineers and pharmacists giving talks about their jobs and careers. These specialists come from a range of backgrounds including industry, consultancy and the universities.

The event, supported by the RSC and IChemE, was attended by over 400 secondary school students from all over Essex and E London - and heard lively careers-focused talks from 25 speakers.

City of London Freeman's School (26 November 2019)



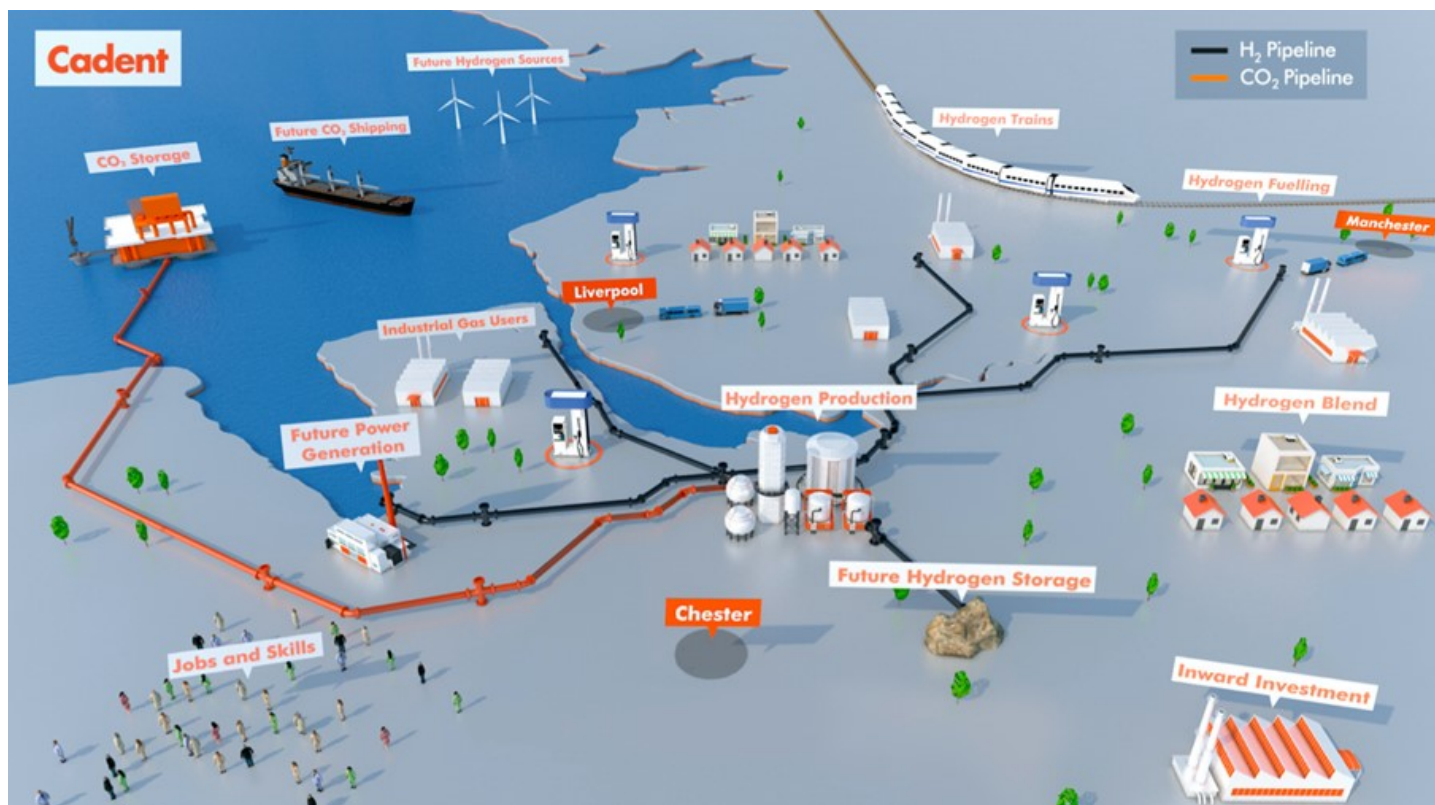
As one of our initiatives to engage with secondary school students, two volunteers took shifts to use WhyNotChemEng advertising material, supplied by Rugby, as a basis for engaging with visitors about what chemical engineers do every day.

This was part of a well-attended careers fair organised for central-London schools and hosted by the Freeman's School, on the northern approach to the Millennium Bridge.

Technical Events

Hydrogen (07 March 2019)

Our first IMechE / IET co-produced technical event of 2019 was fully-booked. Four speakers covered the field - discussing novel production methods, hydrogen-powered trains, the introduction of hydrogen into the UK natural gas distribution network and developments in “conventional” steam methane reforming and auto-thermal reforming.



Industry 4.0: Artificial Intelligence in Chemical Engineering (4 November 2019)

In November 2019 we held a well-attended technical event at the Shell Centre, on the topic of Industry 4.0: Artificial Intelligence in Chemical Engineering, led by Andrea Iliopoulou (Risk Management—Shell Trading & Supply), co-organised with



Nigel Hobson, VP Trading & Supply Operations at Shell and an IChemE Fellow.

Our speakers were Freddie Darbyshire, Digital Product Manager Downstream & New Energies from Shell's Digital Centre of Excellence and Sak Nayagam, Global Marketing Director, Digital at Baker Hughes. Presentations and discussions revolved around digitalization across the Oil & Gas sector and low carbon solutions that could help companies navigate through the energy transition.

Technical Events

Particulate Pharmaceutical Products (21 November 2019)

On the 21st November 2019 the London & South East IChemE members group and the IChemE Particle Technology Special Interest Group organised a workshop on Manufacturing of Particulate Pharmaceutical Products: Current Trends led by Dr Pablo Garcia-Trinanes (University of Greenwich).

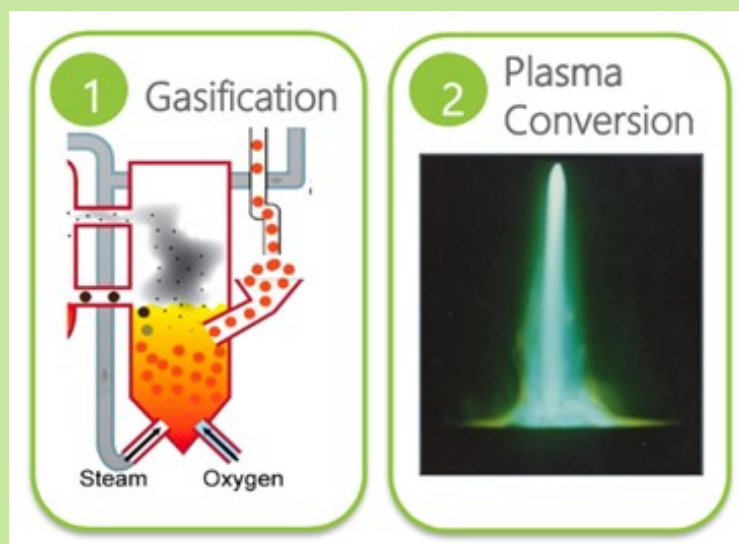


The purpose was to develop professional body capability and to increase collaboration between industry and academia in the field of pharmaceutical manufacturing, education and training. Attended by over 40 representatives, the event aimed to support controlled and targeted delivery, modelling and continuous manufacturing and digital design. Likewise in the audience several members of the IChemE Pharma SIG supported the event.

Dr Marijana Dragosavac, Senior Lecturer for Chemical Engineering department at Loughborough University and Chief Scientific Officer for Micropore Technology Ltd, talked about industrially meaningful production of uniform spherical particles for controlled and targeted delivery using membrane emulsification. Dr Alexander Krok, Marie Curie Fellow at Cork Institute of Technology and Pfizer Newbridge, presented novel and robust prediction models in Pharmaceutical Engineering. And last but not least Dr Marta Moreno Benito, Process Modelling Scientist for Pfizer Worldwide Research and Development, spoke about Digital Twin of Continuous Direct Compression Line for Solid Drug Manufacturing.

The event attracted a numerous and diverse group of representatives in the audience and offered an excellent opportunity for networking. Special thanks to Dr Domenico Macri for facilitating the venue at UCL and his strenuous efforts to make this event a success.

Today's Waste - Tomorrow's Resources (03 December 2019)



This was another in our series of co-produced events involving the IMechE and IET.

With booking numbers into three figures, the audience on the night overcame the impact of an industrial dispute involving train services out of Waterloo, and a very heavy police presence due to a demonstration being expected around Whitehall.

Professor Jonathan Seville and Marvine Besong provided an overview of Recycling Technology's thermal cracking process for treating plastic waste. Dr Massimiliano Materazzi and Dr Ruby Ray updated us on gasification processes for treating municipal waste, with a focus on fluidised bed and plasma technologies.

Young Member Forum (YMF) Events

Visit to the Carbon Capture pilot plant (21 February 2019)

On 21st of February 2019 the YMF LSEC organised a tour of the 500 t/yr pilot scale Carbon Capture Pilot Plant and ABB Control Room, at the Department of Chemical Engineering, Imperial College London. It was a fun and interesting evening with more than 25 attendees from various sectors, both industrial and academic. The tour was guided by Colin Hale and four 3rd Year Undergraduate students of the Department of Chemical Engineering, Imperial College London.



Get chartered for academics (4 November 2019)

On the 4th of November, an enthusiastic audience from academia and industry attended the Get Chartered event for Academics in the Department of Chemical Engineering at University College London. Heather Black, the Regional Support Executive of IChemE, provided attendees with helpful information on the benefits of getting chartered with IChemE and most importantly on the requirements and the steps for the CEng application.

At the end of the talk, the participants had the chance to meet the speaker for further questions while enjoying the refreshments.

Annual Christmas Lecture (12 December 2019)

'Strength in Diversity: thinking differently about who gets to work in STEM'

On the 12th of December 2019, The YMF celebrated the end of a successful year with a Christmas Lecture, hosted at the Department of Chemical Engineering, Imperial College London. Prof. Stephen Curry discussed why he thinks that opening up science, engineering, technology and medicine to all people is the only way to ensure that these disciplines operate at their most productive and target their efforts at the world's most pressing problems.

His enlightening talk stirred nice discussions amongst participants.



1st Article writing competition 'Why I became a Chemical Engineer'

At the beginning of 2019 we asked our Chemical Engineers in London and South East what inspired them to become interested in Chemical Engineering. This resulted in a competition in which everyone was encouraged to take part regardless of the stage of their career they were at and their location in the UK. The stories were collected throughout the year and the winner was announced at the Christmas Lecture in Imperial College of London on 12th December.



The winner is Ravi Shankar with his work called '**ChemEng and a cup of coffee: what could be better?**', which you can find in this edition of the IChemE London and South East Coast Newsletter (page 6).

Ravi was awarded a £50 prize as well as the publication. We would like to mention the contributions of Yasmin Ali, Adam Barnes and Pablo Garcia-Triñanes to assessing all the entries and choosing the winner.

Young Member Forum (YMF) Events

Industry Insights (23 October 2019)

On the 23rd of October, the YMF LSEC hosted at University College London its annual industry insights and technical talk event. This year's guest speaker was Kevin Gormley (CEng FICHEM MEI SMAICH), Chief Risk Engineer for QBE International Markets, speaking on the subject of accidents in the process industries, lessons learned, and their consequences in the current policies.

The technical talk was followed by an Industry Insights discussion panel with the presence of Kevin Gormley from QBE, Sophie Duffield and Laura Miles from GSK, Carl Cota and Colin Tamsett from Johnson Matthey, and Maria Papathanasiou from Imperial College London. The event concluded with a reception and networking session among the 40 attendees from industry and academia.

University News

OnCampus UoG (14 May 2019), QMUL (17 September 2019), IC (22 October 2019), LSBU (24 October 2019)

London & SE Coast MG strives to engage with students at all universities running chemical and biochemical engineering courses locally. With the expansion of the number of courses on offer, this is becoming more of a challenge.

Our first two OnCampus presentations were rather exploratory, given that these courses are new. They involved just one presenter. For the second pairing we fielded a bigger team, with somebody from IChemE staff (covering the mechanics of joining), another from the Member Group main committee (covering the importance of being involved with professional organisations during a career) and a third from the Young Members Forum (focussed on how students can get involved today).

IChemE staff members have additionally provided OnCampus support to UCL and Canterbury Christ Church during the year.

National Grid Isle of Grain site tour (23 September 2019)

On the 27th September 2019 a group of Year 3 Chemical Engineering students from the University of Greenwich visited the National Grid LNG Terminal in the Isle of Grain. The students enjoyed an excellent opportunity to see an actual plant so the things they learn in theory that are related to professional life and provided an insight on a potential future professional opportunity that some students may try to explore. Special thanks go to Mark Johnson, Technical Development and Delivery Manager of National Grid Grain LNG for facilitating the visit.

LSBU careers event (15 October 2019)

Along with an IChemE staff member, we took part in a careers fair at LSBU near Elephant and Castle. Undergraduate students from all years took the opportunity to find out more about the world of chemical engineering. We even engaged with a few students from other disciplines.

ChemEng and a cup of coffee: what could be better?

(By Ravi Shankar)

My passion for chemical engineering actually stems from an encounter at a young age with the brew that fuels many of us daily: coffee. Back in my native south India, a cup of hot filter coffee brewed from freshly roasted arabica beans is the I-Ching as far as beverages go. My dear grandmother, who we lovingly refer to as "Ava", is infamous within our community for the luxurious taste and creamy texture of her coffee brew. I first had the pleasure of tasting "Ava Coffee" when I was around 8 years old and immediately became very curious as to where this drink came from. My grandmother took me to our garden and showed me a coffee cherry, and explained the processes involved in seed to cup: drying, milling, roasting. I guess you could say that this was my first experience with process units in a chemical plant! Since then, I have become somewhat of a coffee aficionado and that moment fed my curiosity with learning about the world around us and how our everyday products are made: petrol, plastic products, cosmetics. "What do you want to be when you're older Ravi?". A question I often asked myself, and was often asked by my family and well-wishers, during my childhood. You see, I was one of those kids who wanted to be everything growing up and never thought about limits. My ambition was to be involved in a profession that facilitates exploration of new avenues of knowledge and opens doors to a plethora of opportunities. Chemical Engineering does just that and I'm proud to stand as a fully qualified chemical engineer today

D&I Events

International Women in Engineering Day 23 June 2019

For the fourth year in a row, the IChemE has helped along with other Professional Engineering Institutions to organise a STEM schools challenge and an evening event at the IET in celebration of the International Women in Engineering Day.



INWED 2019 STEM event 'Transforming the Future' (21 June 2019)



The day was kicked off with an opening address by Jenifer Baxter, Head of Engineering at the IMechE.

An ice breaker session followed to introduce the students to the different types of engineering represented by the organising Professional Engineering Institutions (PEIs).

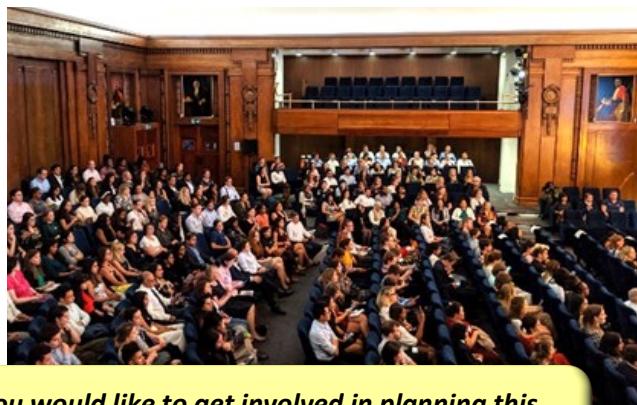
The students then joined in a workshop session on building bridges out of straws which was led by Generating Genius.

The next activity was a webinar on the theme of 'fast forward 100 years, which engineering industry will have had the biggest impact on society and how?'. Yasmin Ali, chartered engineer in

the energy sector, moderated the debate between the panel made up of engineers from different industries. After a lunch break, the students took part in a problem-solving robotics workshop led by Learn By Design.

Evening Event (24 June 2019)

Opening remarks were delivered by Professor Alice Gast, President of Imperial College London. Alice emphasised the responsibility that each of us have to be visible and accessible role models and that one can learn just as much from mentoring someone as from being mentored. This was followed by a panel discussion on topics related to how diversity will transform future leadership in the engineering industry. The event attracted more than 300 engineers from all stages in their careers. The event continued on the IET's roof terrace and riverside room where sponsoring companies held stalls showcasing great engineering projects.



'If you would like to get involved in planning this year's INWED events, get in touch by emailing celine.dischamps@matthey.com'

Social Events

Christmas Social (28 November 2019)

On 28th November, IChemE L&SEC MG hosted a Christmas social event, which was held for the second consecutive year at The Fine Line in London, near Saint Paul's Cathedral. Attendees indulged in a buffet and a few drinks, interesting conversations and networking, enjoying the festive atmosphere leading up to the Christmas period.



Sambrook's Brewery (17 January 2020)

Our return to Sambrook's brewery, near Clapham Junction railway station, five years after our first visit proved very popular. We had assembled our largest group for a brewery tour to date. Splitting into two, we toured the brewing and fermentation rooms. After carrying out some QA on the ingredients, we proceeded to thoroughly test the four cask ales on offer - Wandle, Pumphouse Pale Ale, Junction and American Red Ale. All proved to be in very good condition. The brewery plans to move to the old Young's brewery site in Wandsworth in the near future. So many of us will a little further to travel the next time we visit.

Social Events



Comedy Night (23 July 2019)

On a summer's evening in July, Professor Peter Ludovice performed some stand-up comedy at The Artillery Arms near Barbican. Comedy and Chemical Engineering were combined as the audience were treated to a large and amusing dose of nerdy comedy from the Engineering Prof. by day and stand-up comedian by night.

The event was well-attended and enjoyed by all. Many remained for informal networking after the main event.

Monthly committee meeting Calendar 2019

MAIN COMMITTEE

(Wednesday 18:30)

5th February (AGM)

4th March

1st April

6th May

10th June

8th July

9th September

7th October

4th November

Our meetings in 2020 and AGM will take place at
Society of Chemical Industry.

14-15 Belgrave Square,
SW1X 8PS, London

2020 Events!

Get Chartered (YMF)

IC pilot plant tour (YMF)

Industry Insights (YMF)

Christmas lecture (YMF)

INWED support

Essex Chemistry at Work

University OnCampus

Brewery tour

As our membership should have noticed by now, the big development for this year is likely to be an annual dinner.

We will also continue our series of technical events. The first, a coproduction with IMechE, is currently at the concept-development stage.

Get in touch!



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<https://www.linkedin.com/>



<https://www.facebook.com/ICHEMEYoungMembersGroupLondon/>



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