

IChemE London & South East Coast

Newsletter

February 2019

Welcome!

We have recently changed our name to better represent our constituency - we are now the London & SE Coast Member Group. Our area includes most of Greater London and the areas to the immediate east - South Essex, Kent and parts of East Sussex. We are the largest Member Group in the IChemE, representing more than 7.5% of the world-wide membership. Uniquely, our area contains seven universities running, or about to offer, courses in Chemical (and sometimes Biochemical) Engineering - Imperial College, University College London, London Southbank University, Queen Mary University of London and the University of Greenwich with Brunel University and Canterbury Christ Church University joining later this year.

2018 has been another busy year for your Members Group as we continued to organise events and support the profession of chemical engineering. In this newsletter we will keep you up-to-date with our recent activities and introduce some upcoming events, training opportunities, publications and socials. Thank you to all those who have supported us over the year as all this would not be possible without you, especially our dedicated committee members. You can meet them below!

Outreach Events

Rushlight Awards (25 January 2018)

The Rushlight show at The Royal Geographical Society, London, is designed specifically to support and promote all the latest clean technologies, innovations, initiatives and deployment projects for businesses and other organisations throughout UK, Ireland and internationally.



We have been acting as judges for the Rushlight Awards for last few years on behalf of IChemE and attending the show itself, which showcases exciting and innovative technologies and a diverse range of talks.

This year, the Rushlight Show incorporated:

- An Exhibition of innovative clean technology solutions, including the Innovate UK Energy Catalyst Round 4 Showcase
- UK Energy Breakfast & Seminar
- Cleantech Conference
- Sustainable Solutions Market Panel
- Resourceful Conference, in association with LCRN and the Circular Economy Club

<http://www.rushlightevents.com/>

Inside this issue:

Welcome!

Outreach Events

Member News

Technical Events

YMF Events

University News

D&I Events

Social Events

2019 Events

Get in Touch!

Meet the Team

Post holders

Keith Hanson - Chair

Colin Tamsett- Treasurer

Adriana Vargas-Colwill - Secretary

Elisabetta Negri - Newsletter Editor

Brian Smith - D&I Chair

Yasmin Ali - YMF Chair (2018)

Maria Papathanasiou - YMF Chair (2019)

Carl Cota - YMF Vice Chair & Webmaster

Nan Qi - Get Chartered Rep

Other significant contributors

Akin Williams - Industry Rep

Pablo Brito-Parada - Imperial College Rep

Pablo Garcia-Trinanes University of Greenwich Rep

Arthur Berenfeld - Industry Rep (retired)

Daniel Holden - Industry Rep

Dean Manning - Industry Rep

Outreach Events

Essex 'Chemistry at Work' Careers Event (17 & 18 October 2018)

The L&SEC MG were one of the co-sponsors of the above careers event held at Tilbury, Essex in October. Now in its 14th year, the event is jointly organised by IChemE and the Royal Society of Chemistry. It is designed to promote the chemistry-based professions to 14-17 year olds. This year we had a record attendance of over 600 pupils from 20 schools in Essex, East London and North Kent who heard lively talks from practising chemists, chemical engineers, pharmacists and biochemists on their jobs and careers. Feedback from the pupils and teachers was either 'good' or 'excellent'. The attached photo taken at the event shows 'one of the organisers, Alan Stanford, a member of the East Anglian Members Group with Stephen Metcalfe, the local MP and member of the Parliamentary Science and Technology Committee and Howard Watson, Billericay Mayflower Rotary Club, another of the co-sponsors.



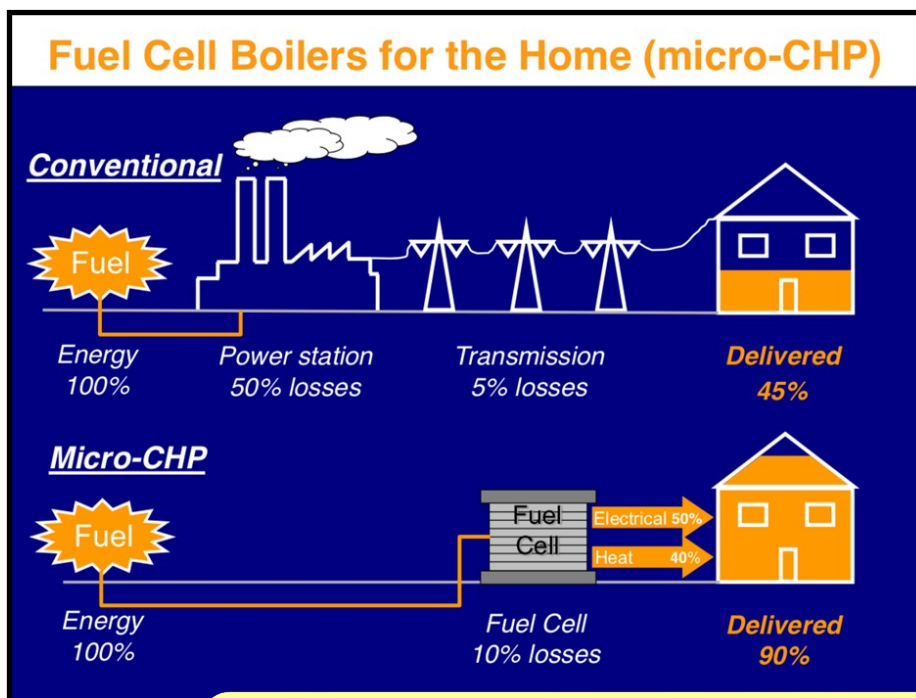
Members in south Essex are now part of the L&SEC MG family!

Member News

2017 AGM (7 February 2018)

Around 40 members gathered in Portland Place for our AGM. Once the formalities had been completed, the warm-up act was

Justin Blades, IChemE DCE & COO, giving an update on the governance review that was preoccupying members at the time. This was followed by the main business of the evening, a well-received talk given by Professor Nigel Brandon of Imperial College on the subject of hydrogen and fuel cells.



To complete the proceedings the retiring Chair, Rukhsana Faiz, was presented with a gift in thanks for all her work over the last two years.



Technical Events

We started something new in 2018 – a series of evening technical events, free of charge for attendees. We ran three in 2018 and plan three more for 2019. The intention is that all our technical events are co-productions. So far, in addition to our main co-producer, the IMechE, in 2018 we linked up with the IET and the Hazard Forum.

Batteries at IMechE Birdcage Walk (11 April 2018)



In April 2018 we held a technical event co-sponsored by us, the IMechE Greater London Region member network and the IET Hammersmith branch.

This was very well attended; the venue within One Birdcage Walk was changed from

a 60-seater conference room to the main lecture theatre. There were four speakers who covered many topics, ranging from challenges associated with scale-up, to those relating to the use of more cost-effective materials (i.e. liquids) in static service for storage purposes.

Each presenter highlighted the respective novelty of each of their areas of discussion and the resultant open questions that require pioneering talent to find the answers within this exciting topic.

Ageing Plant (15 May 2018)

In May we ran a well-attended event in the conference room in our own Portland Place office. The subject of Ageing Plant was considered from four different perspectives.

Our speakers were:

- Gavin Smith, Office of Nuclear Regulation
- Graham Mitchell, Atkins (giving a water industry perspective)
- Peter Marsh, XBP Refining Consultants (giving an oil refining perspective)
- Ian Chapman, HSE

For many, one highlight was how Peter and Ian considered the same heat exchanger event from the different standpoints of operator and regulator.



YMF Leaders

(By Adriana Vargas-Colwill)

After almost one year in the role, Yasmin Ali stepped down as the chair of the IChemE LSEMG Young Members Forum (YMF) in October 2018. Yasmin did an amazing job maintaining the work of the YMF committee, and contributing to making the group one of the most popular within the young professionals' community in the London Area.



Yasmin Ali (Photo courtesy of the QE Prize)

2018 Work

Yasmin took over the role from Arran Marais-Gilchrist and from day one she was determined to elevate the group's visibility. This was reflected by the group publishing the 'Fresh faces' article in the March 2018 issue of *The Chemical Engineer* magazine, authored by Kalifat Akande. This article became fundamental in giving members an insight into what the YMF does, and as a result of publishing the number of YMF committee members increased by 40%. This surge in the level of participation is hugely important for a group run completely by volunteers.

Other plans developed by YMF which were coordinated by Yasmin and were:

- Committee monthly meetings;
- YMF committee dinners;
- Support for the organisation of tours at the Imperial College Pilot Plant;
- Support for the organisation of Technical lecture on Computational Fluid Dynamics (CFD) in heat exchangers;

Technical Events

Dynamic Project Management Seminar (15 October 2018)

In October, Dr. Elvis Hernandez-Perdomo and Alastair Robertson from OSL Consulting Engineers, kindly travelled all the way from Hull to London to provide a seminar on Dynamic Project Management (DPM). This event was organised in collaboration with the IMechE and was held at the IMechE Birdcage Walk HQ.



The seminar was focused on clarifying how engineers can perform quantitative risk and contingency analysis on project management through running and understanding Monte Carlo simulations. Analysing uncertainty as well as identifying and classifying project risk on cost and time were also topics of discussion. Attendees were also given access to the support materials and the possibility of using for a limited time DSL's patented technology for DPM. Overall the event provided not only technical knowledge but also networking opportunities for IChemE and IMechE members from various industries.

Young Member Forum (YMF) Events

CalGavin Computational Fluid Dynamics Talk (31 May 2018)

In May the Young Members forum hosted a technical talk about Computational Fluid Dynamics, presented by CALGAVIN. For over 30 years CALGAVIN has built up expertise in the thermal design and analysis of process plants. Their engineering team have extensive knowledge of thermodynamics, heat transfer and fluid flow phenomena, combined with global experience providing improvement solutions to hundreds of plants worldwide.

Get Chartered Evening (16 April 2018)

In April L&SEC MG YMF organised a Get Chartered evening about the chartership process and Continuing Professional Development (CPD). A evening of presentation and Q&A open to all was attended by around 30 delegates. The event aimed to provide useful information about the value of and process of becoming Chartered; IChemE requirements on CPD and online tool available for CPD activities.

YMF Leaders

- Organisation of International Women in Engineering Day 2018 plans;
- Support for the organisation of Tour to the UCL Bioprocessing Pilot Plant;
- Tour to E.ON Citigen CHP Site;
- Engineering Lates at the Science Museum;
- Nature Inspired Chemical Engineering Christmas Lecture.

STEM Promoter

Yasmin didn't only lead the YMF in 2018; as a recognised STEM promoter, QE Prize Ambassador, and science communicator (Yasmin ran the radio programme Pythagoras' trousers @ Radio Cardiff for 6 months, and is currently a news presenter on the IET channel). She has also participated in a great number of STEM events at schools and other venues across the UK. One of these took place at the Science Museum family week in October 2018 where Yasmin made ice cream using liquid nitrogen. This demonstration proved highly popular with the museum's visitors and provided a practical example of the application of the science of engineering to the things we use and consume every day.

"I got into engineering by accident, I received a Whynotchemeng flyer, which is why I dedicate time to promoting STEM so that others can make more informed career decisions. Also STEM skills are fundamental for our society".

Young Member Forum (YMF) Events

Pilot Plant Tour (March 2018)

The Imperial Pilot Plant tour took place in March and was attended by students from different universities. Dr Colin Hale, a senior lecturer at Imperial's Department of Chemical Engineering, presented the plant's history and processes before a tour of the plant and its control room. There was plenty of time for questions and networking at the end of the evening.



Citigen Tour (02 August 2018)

In August, E.ON hosted a visit for 15 IChemE members at Citigen, their District Heating site in the heart of London. Members were welcomed with a presentation about the business from Stephen Hutchins, Senior Asset Management Engineer at E.ON. This was followed by a tour of the site and networking.



Get Chartered for Academics (21 November 2018)

In November the L&SEC YMF organised an event at Imperial College London to inform academics across all levels on the Chartership process. It was an energetic evening with over 25 participants across different academic levels (from MSc to Professors). Heather Black from IChemE, gave detailed information on the steps required for the CEng application with focus on professionals in the academic field. Dr Chris Tighe from Imperial College London, shared his views on the CEng process and how the qualification has helped him in his academic journey. At the end of the evening the participants had the chance to meet both speakers for questions.

YMF Leaders

Time for a new YMF chapter

Yasmin is now focused on her job as Energy Engineer at the Department for Business, Energy and Industrial Strategy where she provides technical energy advice to ministers and policy teams to help shape the future of energy. Of her experience as YMF chair Yasmin said:

"Being YMF chair was great, it was a good opportunity to lead a group of engineers and help deliver activities for the chemical engineering community. The role also came with some challenges, like how to keep volunteers engaged and learning to delegate effectively".



The incoming YMF Chair, Maria Papathanasiou, Research Associate at Imperial College London, is ready to take on the challenge. Maria is currently working on Healthcare and drug manufacturing after a research career that included posts in Greece, Denmark, the US and UK.

Maria's plans as chair of YMF include:

- Engaging more academic members
- Streamlining YMF social media communication
- Enhancing YMF presence across academic communities
- Supporting chartered members.

Young Member Forum (YMF) Events

Christmas Lecture (05/12/2018)

Professor Marc-Olivier Coppens spoke passionately about his novel subject/methodology which he terms Nature Inspired Chemical Engineering (N.I.C.E) and provided many real life examples of what his team have invented and/or discovered using the NICE methodology. The chemical engineering research society (CHEERS) based in UCL provided hot drinks, mince pies as well as other refreshments for our guests. We also had a networking session after the presentation and Professor Coppens was happy to answer many questions from our guests.



YMF Leaders

In her own words: *"I have been a member with IChemE since 2014 and it is with great honour and excitement that I now accept the role of the L&SE YMF Chair. Taking the role from the multitalented Yasmin Ali is definitely a tough call! I've a got a dynamic and creative team to work with and a lot of ideas that will help the group expand further. Coming from an academic environment, one of my main goals is to increase the academic representation within the IChemE, starting from the YMF. I strongly believe in collective work and I support multidisciplinary teams and environments. On that end, I'd like to see academics and industrialists working together within the IChemE, advocating for Engineering and supporting each other along their journey of professional development. I've got a lot of ideas for new events that we'd like to run, so stay tuned. 2019 will be an exciting year!!!"*

To join YMF, get in touch with Maria and the YMF team at :

londonseymf@ichememember.org

University News

This academic year the Faculty of Engineering and Science at the University of Greenwich, UK opened a new chemical engineering laboratory at the university's Medway Campus in Kent.

Greenwich's new chemical engineering lab was opened last year to complement the new chemical engineering programme. The lab is located in the Hawke building, a multidisciplinary facility belonging to the Faculty of Engineering and Science.

Dr Pablo García-Triñanes, head of the chemical engineering division, explains that "the new lab is fitted with equipment to facilitate student learning and give them hands-on experience to complement their theoretical studies and prepare them for careers in industry".



D&I Events

Social mobility

In late 2017, the Diversity and Inclusion Working Group established a sub-group to look at social mobility and they surveyed IChemE's UK members about their backgrounds and careers. The survey aimed to determine if a career in chemical engineering provided a pathway for upward social mobility. Over 1,200 members responded to the survey, representing more than 7% of IChemE's UK membership. Overall, chemical engineering is seen by IChemE members as a profession where social mobility is possible. Almost 75% of survey respondents identified themselves as coming from a working or lower middle class background. However, this percentage is shrinking in younger-age demographics. The number of female chemical engineers has increased in

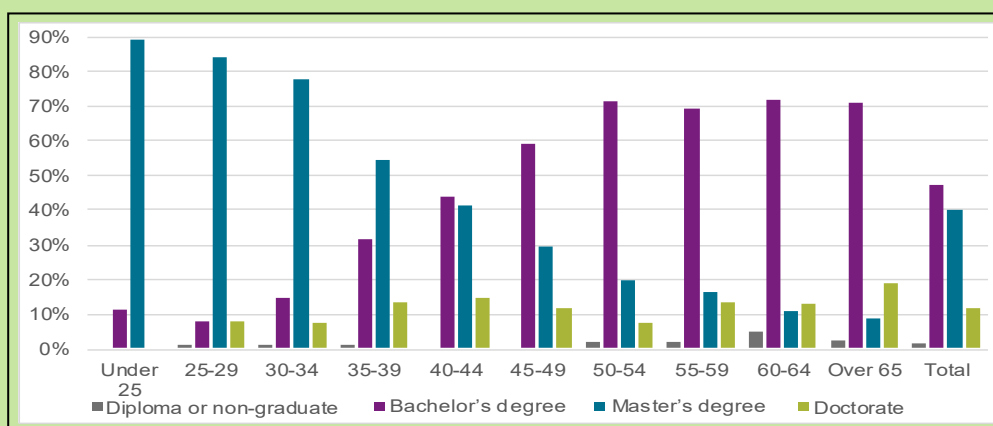


Figure 1 - Highest qualification achieved for different respondent age groups

recent times and currently stands at 28% for those under the age of 25. Similarly, the number of chemical engineers from minority ethnic groups has increased to 9%, but there is still a need to improve and consider further analysis of the complex interrelationship between social class, gender, and ethnicity. Region can influence access to chemical engineering and career opportunities. This is visible throughout education in terms of regional deprivation and access to work experience and awareness of the profession. Industries that employ chemical engineers are not evenly spread across the UK and therefore many people move to study (at university) and then again for jobs. Clusters of chemical engineering employers exist in the North East, North West, Scotland and the South East. For many respondents, moving for work is not an issue, but where it is, family is the main reason that prevents people from moving.

At the moment, careers in chemical engineering appear to be dominated by graduates. Only 1% of survey respondents did not hold a degree or higher qualification. This could limit accessibility to those from a disadvantaged background, but further monitoring of social demography in chemical engineering is needed. Once at university, the playing field is levelled, and social background is not a barrier to career opportunity or progression. However, there are some differences on career sector and roles pursued based on social background. Earnings appear to be independent of social background, and levels of career satisfaction are broadly equivalent. The survey clearly shows that chemical engineers believe that their career has provided them with the opportunity for upwards social mobility.

Social Events

Partizan Brewery Tour (29 June 2018)

In another of our sell-out visits to London breweries and distilleries we visited Partizan Brewing in South Bermondsey. Located in the "beer mile" east of London Bridge, in this case underneath the mainline railway arches, this is one of a number of microbreweries in the area. Split into smaller groups so we could comfortably fit in the brewing area, everybody had a chance to view the equipment, hear about the process and ask questions.

Networking event (13 November 2018)

In November the Committee arranged an informal gathering at The Astronomer, near Liverpool Street station. The event was filled to capacity and provided plenty of networking opportunities for IChemE members. Attendees were also made aware of the types of activities the Committee arranges during the course of the year and were encouraged to participate in any activities they may wish to pursue.



Social Events



Christmas social event

The 11th of December IChemE L&SEC MG organised a Christmas social event at The Fine Line in London. This was a great opportunity to celebrate the festive season and meet new faces in the region.

The members enjoyed a food buffet with drinks in a relaxed environment in the heart of London.

Monthly committee meeting Calendar 2019

MAIN COMMITTEE (Wednesday 18:30)

09 January 2019

13 February 2019 AGM

06 March 2019

03 April 2019

08 May 2019

05 June 2019

10 July 2019

04 September 2019

09 October 2019

06 November 2019

13 December 2019

IChemE lease at Portland place has ended so alternative venues are being booked for each meeting with the options of meeting rooms at IStructE, IOM3 and ICE

2019 Events!

Hydrogen technical event co-produced with IMechE, IET & IChemE Clean Energy SIG
(07 March 2019, 18:00 at the Lecture Theatre, IMechE HQ, 1 Birdcage Walk, Westminster, London, SW1H 9JJ)

LNG technical event (co-production with IMechE)

Third technical event

Get Chartered

Get Fellowship

IC pilot plant tour

Industry Insights

YMF technical event

YMF Christmas lecture

INWED support

Diversity event

Essex Chemistry at Work support

University OnCampus presentations

Brewery tour

Get in touch!



https://twitter.com/London_SEIChemE



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



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



london@ichememember.org