United Kingdom and Ireland Section   Mona Ghassemian

List the activities carried out to foster relations with Industry and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help your Section in your industry-related activities?

Getting closer to Industry is one of the three top priorities set in the UK and Ireland Section for 2020 and 2021. Our IEEE United Kingdom and Ireland Section has an Industry Delivery Officer (Prof. Rod Muttram), an Industry Liaison Officer (Dr Steve Nightingale), and Professional Registration Officer (Dr Brian Harrington) these three key officers ensure we have continued collaboration with industry. Key achievements

- You will be pleased to know that the Re-training package for Rolls Royce traditional mechanical engineers successfully delivered.
- A Steering Group has been formed, and Brian Harrington has agreed to chair the Steering Group to develop the proposed Professional Registration arrangements. Section ExCOM have fully support him in this at the Section meeting in Manchester (Oct 2019).

Update on ongoing projects / Challenges There are a number of ongoing projects, as follows:

- The work with Rolls-Royce is considered to have been successful, however we discovered quite late in the process that RR had an existing contractual arrangement with the IEEE to access much of the material they needed for their internal re-training. We were able to re-activate that and assist them, but that achieved little in the way of membership growth in industry. This raises issues regarding internal communication between the IEEE staff and the 'changing pool' of volunteers.
- The major barrier to progress remains the ability of the IEEE to facilitate Professional Registration with the Engineering Council (CEng, IEng, EngTech or ITC Tech). Since many companies want that and will generally only pay one set of membership subscriptions, people who were IEEE members at university are lost to other PEIs when they commence employment.
- We got close to an arrangement with the IMechE to Register through them but that faltered due to the IMechE's own governance problems which led to staff changes. This could be re-initialised now that IMechE has stabilised, but we need to re-confirm that is our preferred approach.
- A meeting was held to discuss this topic with IEEE President Jose Moura, Ali Hessami, Tariq Durrani, Mona Ghassemian and Rod Muttram in London on 16th September. Jose Moura supported moving forward to get to a point where IEEE can offer Professional Registration in the UK. He favoured the route of establishing an IEEE UK legal entity and perhaps attaching the management of the scheme to the Senior Member process for administration purposes because:
  - The President was concerned about the IMechE only being able to handle members who have some mechanical engineering competence.
  - He did not think IEEE HQ would countenance a lower subscription rate for dual membership.
  - He welcomed the section seeking financial support from IEEE future directions to run a pilot to work on a business model to verify the impact of dual registration in the UK and Ireland section.
- The Industry delivery committee has agreed to re-launch this initiative and has set up a Steering Group, which Brian Harrington has agreed to Chair. We have had one subsequent telephone meeting at which it was agreed we would talk to the IMechE again as stage one to see what their current position is before proceeding with an alternative which has other potential issues to be resolved, not least who would be the officers of any company set up, whatever legal form were chosen.
- A meeting was held at London Engineering Council (EC) to further progress the professional registration topic on 28th Jan 2020, with participation by Ali Hessami, Ahmed Zouba, Mona Ghassemian and Rod Muttram. Key points from this meeting:
  - The goal is to become a Licenced Member of the EC alongside 36 others in the UK
  - The full process of registration requires assessors, advisors, CPD regime, disciplinary committee etc that may require up to 100 volunteers
  - There's a need for a pipeline of registrants
  - Key requirement for PA is to demonstrate the entity is an established and stable UK organisation with 5 years of operational record being a legal entity is a requisite also primacy of members in the governance
  - There's a strategic review by EC Board and requirement for a UK legal entity is one of the issues that it is currently mandatory
  - No organisation will become a direct Licenced Member so the route is PA followed by LM
  - here are some technical licencing workshops that IEEE may attend
  - EC also do FEANI registration
  - EC will send requirements to IEEE and indicate the mechanism and timing for a formal approach for registration as PA

Initiatives planned during the next 6 months

- Stage 1 will be to re-visit the talks with the IMechE and the IEEE legal department to advise on the set up of a UK & Ireland legal entity. Further discussion will then be required with the Section team to agree the way forward.
- Stage 2 will be to work on a report to deliver to the Section AGM in April with a plan for action (April 2020).
- Stage 3 will be to further communicate with the Engineering Council and participate in relevant workshops (Sep 2020).

Region 8 support

- The Region could assist by clarifying if professional registration with the Engineering Council is something we, as a Section, could leverage from the Region action for industry committee.
- If other Sections have gone through this process within our region, it will be helpful to our Section to be directed to them to benefit from their experience.

List the activities addressed to Students and/or Young Professionals and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your students and YP-related activities?

Our IEEE United Kingdom and Ireland Section has a Young Professional (Chairperson: Noel Gomes) and Student Activity Committee Officer (Chairperson Dr Lee Crudgington) as key officers to run both affinity group activities and have close collaboration for joint events that both students and YP benefit from (such as R8 SYP).

Overview and current Young Professionals (YP) and Students Activities (SAC) in our Section: Young Professionals (YP) Key Achievements

- UK and Ireland YP committee has 15 volunteers with representation in all major cities across UK & Ireland. However, our committee is in a state of transition with volunteers moving around for new jobs/commitments. A new recruitment drive has been initiated to take on more volunteers and support our activities across the section. We are still looking for volunteers in the South east of the country.
- YP website https://ieeeukiyp.org/ has been enhanced in collaboration with the new webmaster.
- YP successfully co-hosted the 'West European Student and Young Professional Congress 2019 (WESYP) in Glasgow from 19-21st Sept at Glasgow Caledonian University. The event titled 'Building a Sustainable Future' drew a participation of 74 attendees from across the UK and Western European Sections and comprised of an action-packed program of keynotes from industry, sub-plenary sessions, IEEE streams, panel discussions, competitions, networking opportunities, etc., including a joint reception with HISTELCON. UK and Ireland Section financially supported the event along with sponsorships secured from the host university GCU, SICSA, SAC and a number of IEEE societies, namely Photonics, ComSoc, PES, IAS, Signal Processing, Region 8 Professional and Education Activities Sub-committee and Antennas and Propagation society. The event welcome video is located here https://drive.google.com/open?id=1FPqJXDaPjz9Ee372IQs7bYwefDuD0eO3 and pictures can be found here https://wesyp.org/gallery/
- 2nd YP Postgrad STEM Symposium was organised in Leeds on 23rd October 2091, following the success of the Chester event in 2018. Previous event reports are available on the Section website here https://www.ieee-ukandireland.org/ieee-uk-ireland-yp-postgraduate-stem-research-symposium-2018-evening-report/. Event Report and links below:
  - Full event details: https://ieeeyp.researchsymposium.co.uk/
  - Event photos: https://bit.ly/2IP23Xk
- Promotion video: https://vimeo.com/319918764/033f17387f
- Increased participating in collaborative Chapter /similar group events across the across the country:
  - IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP) and IEEE SPS YP, Brighton - May 2019.
  - IEEE Cyber Science 2019 Conference, Oxford - June 2019
- Build on current success and volunteer base from existing events to further reach out to members across the section.

YP Initiatives planned during the next 6 months

- A Digital Health Conference followed by an Entrepreneurship session on 'Starting your own Venture' and an Arduino workshop planned for 2020 in Ireland.
- IEEE YP and Scottish Networking Event for computer scientist (SCONE) 2-day Conference planned for Feb 2020 at Robert Gordon University, Aberdeen
- 3rd PG STEM Symposium planned for 2020 (possibly in Scotland) with the intention to elevate this to a section-wide event.
- Half-day musical conference planned for London - in 2020
- A repeat of the very successful 'Pitch Bootcamp' event in Midlands or South - second half of this year.
- Industry and professional networking 'meet-up' events - section wide in 2020.
- Improve digital/social media presence and communication with members through re-vamped website, Facebook and twitter page.
- Continue to collaborate with industry, chapters and other similar organisations with shared interests
- Discussion initiated with the IET YP Chair to collaborate on events next year - more details to follow.

Student Activities (SAC) Key Achievements

- Successful hosting of the IEEE WEuSYP Congress in Glasgow Caledonian University on 20-21st September 2019.
- Increasing awareness of student activities amongst local student groups, particularly within Scotland.
- Significant improvement in communication with student branches since last reporting period (17 active branches)
- Significantly more student branches meeting their reporting deadline, despite changes to the system in early 2019 (12 reports received, and rebates made available)
- Increased traffic to the IEEE UK and Ireland Student Activities social media page
- Higher - profile events and seminars held within student branches (Technical as opposed to social activities)

SAC Initiatives planned during the next 6 months

- Continue programme of increased engagement and communication with UK and Ireland Student Branches, to ensure that the correct details are always recorded on OU Analytics.

- Increase the UK and Ireland wide advertising of large-scale events throughout the section, such as the recent IEEE ACDS conference at Imperial College London.
- Closer interaction with Region 8 SAC - (Chairperson - Dr Lee Crudgington- also serving on this committee) - For detailed information on competitions, awards and region-wide programmes. A closer communication was initiated by Lee with university counsellors for the student reporting due on 1st of Feb.
- Renewed discussion of membership development strategies and guidelines to branches, to cultivate increased student membership in the coming academic year - For example:
  - Providing links to the IEEE benefits literature
  - Provision of posters and leaflets for use at welcome events, careers fairs and faculty occasions.
  - Pre-authoring e-mail templates for branch chairs to distribute to their department and student lists.
- Further involvement of the local student branch chairs in section activities, including:
  - Hosting national events and activities, such as collaboration with PES / History society activities.
  - Advertising their events programme to a wider and more diverse audience.
  - Greater feedback from branches to allow for increased awareness of IEEE facilities.
  - Increase publicity and branch involvement in IEEE-wide programmes.

Region 8 support
- We have hosted R8SYP in 2019 with support from Region 8 which we appreciate. And we benefit from a close communication with R8 SAC thanks to Lee.
- For our YP members in our section, due to other institutes such as IET that provide free membership to students, we have a continuous challenge for recruiting students after graduation in particular those go to industry. We require support from Region 8 to consider our challenge and provide support to our section being in competition with other institutes to provide support recruiting industrialist and postdoc researchers.

List the activities carried out to retain and recruit members and the results obtained. List the initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your membership-related activities?

- We continue to provide a number of member value propositions ranging from professional registration to chartered status, which may allow us to award Chartered-level recognitions to our members, like those offered by the IET and IMechE.
- We have formed the IEEE Blockchain Group, the first IEEE Blockchain Group in Region 8. This Group has over 120 members, and will be launched on 24th February 2020 at the London Metropolitan University, London, UK https://www.ieee-ukandireland.org/event/ieee-united-kingdom-ireland-blockchain-launch-2020/
- Our IEEE Blockchain Group organises a free monthly webinars to our Section members, a value-add to both our members and non-members. Previous recordings of the webinars are freely available on our Section website https://www.ieee-ukandireland.org/chapters/blockchain/
- Our education affair office (Dr Zeyad Al Shibaany and Dr Jorge Varela Barreras) plans to develop 'battery and EV -related training' with the management board of the Faraday Institution (TFI) and launch a pilot phase a collaborative project with TFI. The training will provide technical support to our member. Additionally, we can use this pilot and the learnings included to set up further CPD trainings aiming at our industrial members.

List the activities intended to support chapters, affinity groups, and student branches and the results obtained. List the related initiatives planned during the next 6 months and their expected outcomes. How can the Region help in your support to chapters, affinity groups, and student branches?

- We have an active, dynamic and vibrant Section.
- We have three top goals to achieve in 2020-2021 and work to develop our activates to support our goals:
  1) Getting closer to industry
  2) Humanitarian activities
  3) IEEE Future Initiative and Future Direction
- We continue to provide and pursue a number of member value propositions ranging from professional registration to charter status, which may allow us to award Charter-level recognitions to our members, like those offered by the IET and IMechE.
- Our Section has formed SIGHT and Humanitarian activities including HAC and has recruited a number of leaders for these groups.
- We have had several online meetings, student branches activities, lectures and workshops, e.g. we organised a student branch lecture at Kings College London, KCL in March 2019
- We hold regular Section meetings - both online and face to face, the next face to face meeting will be on the 17th October in Manchester, UK, and the next one will be in London on 24th April 2020. SIGHT Humanitarian activities are one of the three top priorities set in the UK and Ireland Section for 2020 and 2021.

Key Achievements
- SIGHT Chair is appointed (Prof Ali Hessami) in Jan 2020.
- Petition submitted with 4 themes targeted by UK and Ireland interim SIGHT committee to address community problems:
  - Assisted living for autistic children tech: Improving Autistic children engagement and social interaction with their family and friends. [funded]. IEEE SIGHT Projects Committee awarded this project with a funding amount of USD $9,815.
  - Smart home to improve elderly quality of life(Dementia): Senior citizen assisted tech: Improving quality of lives of ageing population in the country by reducing the sense of loneliness.

- Tactile IoT to assist visually impaired community: Navigation tech for Blind/deaf assisted living: To improve independent living for blind/deaf population in the country by providing navigation haptic tools.
  - Technology to empower refuge women through education: Empowerment and assisted learning and access to local resources for refugees especially for women and children.
- X-sectional SIGHT: Strong interest from Latvia, Mauritius, Germany, Spain and Iran to collaborate with UK and Ireland SIGHT on our 4 identified themes
- Section SIGHT link: https://www.ieee-ukandireland.org/chapters/special-interest-group-on-humanitarian-technology/
- Plan for running multi/selective activities according to priority/resources.
- UK and Ireland SIGHT committee intends to submit its interest to host IHTC 2021 in Sept 2021.

Elections

The current Chair (Dr Mona Ghassemian) took over on 1 Jan 2020 from Prof Mike Hinchey.

The Section conducted a Section Vice Chair election in December 2019, and a Section Vice Chair has now been appointed (Prof Izzet Kale).

X-Sectional Activity (RTSI-SIGHT-Industry visit)

RTSI 2022 to be held in the UK

SIGHT:

- Interest from Latvia, Mauritius, Germany,
- Spain to collaborate with UK & Ireland SIGHT on our 4 identified themes

Interest in place from Tunisia to visit UK- Habbib

- Summer school - Glasgow August 2020- Dr Hoa Le Minh

ComSoc summer school to be supported by participants within Region 8.

Plan for running multi/selective activities according to priority/resources with support from Region 8.

New initiatives

Developing IEEE new technical initiatives and working in line with IEEE future direction are one of the three top priorities set in the UK and Ireland Section for 2020 and 2021. Blockchain We have formed the IEEE Blockchain Group and the Group will be formally launched at an event on 24th February 2020. https://www.ieee-ukandireland.org/event/ieee-united-kingdom-ireland-blockchain-launch-2020/ Future Networks Initial discussions and meeting with the future networks committee at 5G world forum- similar style to Blockchain- A chair to be appointed to follow up on the discussion- potential event with ICC/PIMRC 2020. A DL tour is being under preparations in May 2020 mainly with a collaboration with FNI and ComSoc.Keep link with our event sponsors

- - Find ways to have annual fee for sponsorship
  - May require contract with IEEE
  - Discussion with Mathew and Mike
- Industrial internship

Challenges (with a focus on what support is required from Region 8)

Our Section is pleased to announce the following miscellaneous achievement so far:

- The IEEE UK & Ireland Section hosted IEEE President (Prof Jose Moura) and IET President (Dr Peter Bonfield) at a Christmas Lecture at Regent Street Cinema, University of Westminster, London, UK on 17th December 2019. To our knowledge, it is believed to be the first time, an IEEE President has shared the same platform with the IET President. It was a memorable event.
- The Section hosted the IEEE Flagship conference, HISTELCON 2019 at Strathclyde University, Glasgow, Scotland, UK, on September 18-19, 2019. https://www.histelcon2019.org/

- We are also hosted the West European Student and Young Professional Congress (WESYP) 2019, https://wesyp.org/
- We held another Milestone event for the Unveiling of an IEEE Milestone Plaque for the Standardisation of Electrical Measurement Units on 17th September 2019 at the University of Glasgow. https://www.eventbrite.co.uk/e/the-standardisation-of-electrical-measurement-units-tickets-60370453652
- We have 2 outstanding IEEE Milestone Events in the coming year or so.
- We have hosted the 4th Annual IEEE UK & Ireland RAS Chapter Conference on January 22, 2020, on Transformative Robotics for Industries. Event details can be found here https://www.ieee-ukandireland.org/event/the-4th-annual-ieee-uk-and-ireland-ras-chapter-conference/
- We also hosted the 2nd IEEE British and Irish Conference on Optics and Photonics (BICOP 2019) in December 2019 by the UK and Ireland Photonics Chapter. Event details can be found here https://www.ieee-ukandireland.org/event/ieee-british-and-irish-conference-on-optics-and-photonics-bicop-2019/
- Our Sections' Women in Engineering (WiE) scooped the 2019 IEEE Region 8 WiE Affinity Group of the Year Award (Report can be found on https://www.ieee-ukandireland.org/wp-content/uploads/2019/07/IEEE-WIE-UKI-2018-Activities-Report.pdf)
- We formed the IEEE Blockchain Group, the first IEEE Blockchain Group in Region 8. This Group is part of the IEEE Futures Directions, has over 120 members, and will be launched on 24th February 2020 at the London Metropolitan University, London, UK https://www.ieee-ukandireland.org/event/ieee-united-kingdom-ireland-blockchain-launch-2020/
- Our IEEE Blockchain Group organises a free monthly webinar to our Section members, a value-add to both our members and non-members. Previous recordings of the webinars are freely available on our Section website https://www.ieee-ukandireland.org/chapters/blockchain/
- Our Section website is a big asset for our community and Section. It has vital information for members, and continue to be a source for dissemination of member related and IEEE activities. Our Section News column offers current list of activities https://www.ieee-ukandireland.org/section-news/