

Section: UK and Ireland Section

Reporting Officer: Eduardo Audiche - Secretary

Section Vitality

The section has set three priorities in line with membership development: 1) Getting closer to industry, 2) Engage in IEEE Future direction, and 3) Contribution to Humanitarian activities.

1. Industry engagement is led by Industry forum and professional registration chairs. Different awards were received including IEEE industry engagement award in July 2020.



<https://www.ieee-ukandireland.org/ieee-electron-devices-society-chapter-celebrates-successful-2020-industry-placement-program/>

2. Four local groups have been established since 2020. Blockchain LG was launched in Feb 2020 after nearly 18 months of organisation. Future network initiative had its launch event virtually on 25th March 2021. The Cybersecurity local group was formed in 2020 and formally launched this year in May. Quantum local group is the more recently formed group which was approved by the ExCom in the Section Autumn Meeting last 26th of October. IEEE Brain and few other local groups are in pipeline to be launched in 2022.



<https://www.ieee-ukandireland.org/future-directions/>

3. First UK & Ireland section SIGHT project completed in August 2021: “Inclusive Multi-Sensor Platform for Autistic Kids that Encourages Social Interaction” <https://www.ieee-ukandireland.org/affinity-groups/special-interest-group-on-humanitarian-technology/>

Our SIGHT committee also is hosting the IHTC 2021 (International Humanitarian Technologies Conference) on December 2nd to 4th 2021 (Virtual Conference) <https://www.ihtc21.org.uk/>



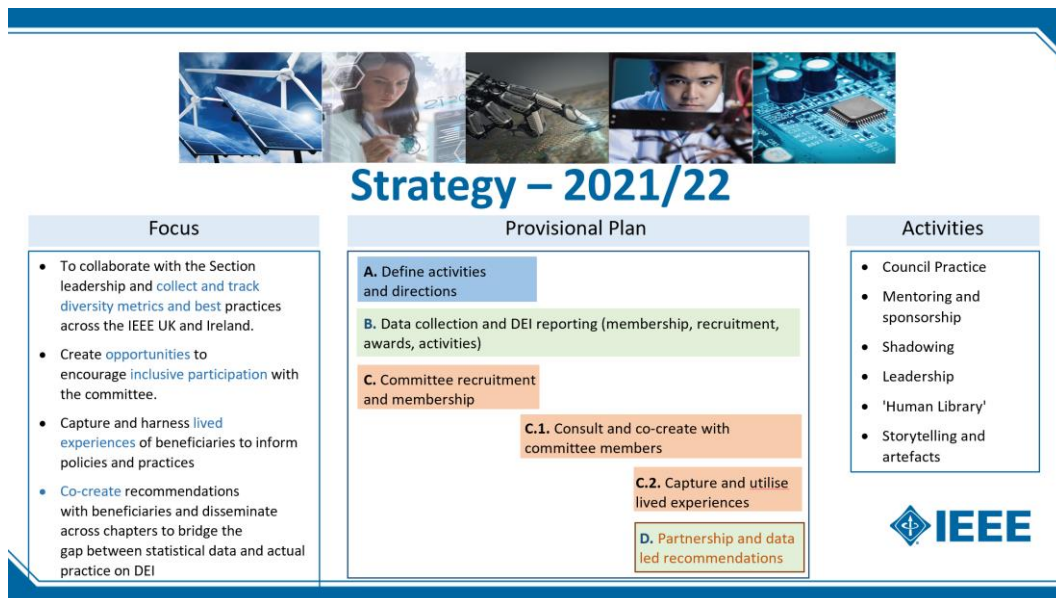
The above 3 section strategies are set to organise events in response to the membership needs and interests and for better engaging members in the section activities:

Taking that there are a lot of members that do not know enough other members to then apply for senior membership and that getting people to senior membership helps with retention, one of the main focuses has been on supporting members to elevate to senior membership, which is done through a due diligence process. This has been successful for several hundreds of our members but is very labour intensive. It is supported by a pool of volunteers that either help with the due diligence process and/or the writing of references.

Membership development has mainly been focusing on ensuring members are happy with their membership and so at various points, questionnaires have been sent to our members, to better understand them and give them an opportunity to inform us (ExCom) on what they would like to see more of through their membership. Due to the large geographical spread, over the recent years, our section has been starting to do more webcasting of talks that make them accessible to the section as such, rather than those that live “close enough”, something we want to do more of, but which has technical requirements. We also ensure that we take up any opportunity to recruit new members, through e.g. IEEE booths at conferences, universities (mainly for student members), and then also talking to employers who e.g. are looking to promote professional membership to their employees.

Diversity, Equity, and Inclusion Group

During the Section Autumn Meeting last 26th of October, the Diversity, Equity, and Inclusion (DEI) Group presented its strategy and focus plan. In this meeting, the ExCom ratified the interim Co-Chairs appointed by the Nominations and Appointments Committee in September 2021.



Diversity, Equity, and Inclusion Group

Students

The UK and Ireland Section currently has 42 registered SB in the UK and Ireland Section. 34 of these are active and have submitted reports in the previous year, with the others in ongoing discussions.

The Section has seen rapid growth of enthusiastic student branches across over 30 universities, holding high quality and diverse events. Our successful revitalisation programme saw an increase of student branch reports from 8 in 2019 to 34 in 2021, with a further five appointments made to previously dormant branches and branch chapters throughout 2020. This previously resulted in a student branch rebate of £2919 being received to be invested in further student activities in 2021.

The UK and Ireland Section has seen a number of student branches participating in the IEEE Student Awards, including the Larry K. Wilson Award, Regional Exemplary Student Branch Award, Darrel Chong Student Activity Award and the Global IEEE Student Branch Website Contest. Many branches plan to participate virtually in the upcoming IEEEExtreme 24-hour

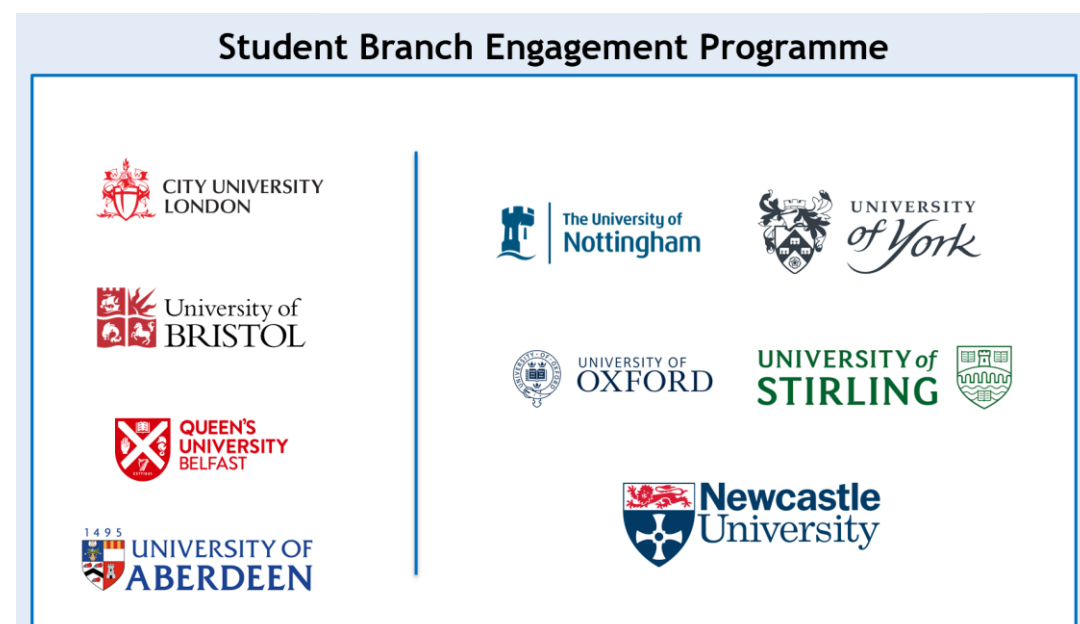
programming competition, the IEEEemadC mobile application development contest and the IEEE Region 8 Student Paper Contest. In addition, the UK and Ireland Section student branches participated in the IEEE Day Virtual Celebrations. The plan for 2021 is to further increase the appointment of enthusiastic officers to the remaining dormant student branches, with the objective to achieve a 100% reporting rate. Support will be provided to student branches to hold a diverse and interesting range of virtual events, and collaboration between student branches will be encouraged. Finally, a focus on developing student chapters within the section, with the aim of supporting high-quality technical events and webinars from distinguished lecturers will be undertaken, with funding made available to support this initiative.

Last year three events organized by our SBs were awarded with The Darrel Chong Student Activity Award:

- University of Leeds SB: 2nd IEEE UK & Ireland YP Postgraduate STEM Research Symposium
- University of Manchester PES SB: Manchester Energy and Electrical Power Systems Workshop
- University of Manchester PES SB: Women in Engineering Workshop

Additionally, the following SBs received the MGA Exemplary Student Branch Award:

- University of Manchester
- University of Leeds
- Glasgow Caledonian University



Affinity Groups and Local Groups

The UK and Ireland Section has a well established Life Members, Women in Engineering and Young Professional Affinity groups. More recently the Section has also supported forming technical Special Interest Groups (SIGs). SIGHT in 2019, Blockchain was launched in February 2020. Future network initiative had its launch event virtually on 25th March 2021. The Cybersecurity local group was formed in 2020 and formally launched this year in May. Quantum local group is the more recently formed group which was approved by the ExCom in the Section Autumn Meeting last 26th of October.

Life Members

They have planned to unveil the latest IEEE Milestone plaque (Active Shielding of Superconducting Magnets) at the Siemens factory at Eynsham, Oxford, next half of 2022. The Committee has continued to work on the Milestone proposals in its pipeline. The EMI CT X-ray Scanner proposal has been approved by the IEEE History Committee, subject to agreement on the wording of the citation. A proposal from the Manchester Computer Science community commemorating the Atlas computer and the Invention of Virtual Memory is being submitted. Also, the 'Baby' Ferranti computer. Other possible candidates for Milestones are under review and will continue to be worked on by the LMAG Committee.

Women in Engineering

WIE committee members often receive requests to speak at events or to organise hands on sessions across the Section. They have planned to develop a WIE Ireland network of volunteers to promote WIE at events (in collaboration with WIE R8). Also develop a database of female keynote speakers for recommendations to conference committees. WIE will apply for SIGHT funding to develop training support materials for neuro-diverse women in engineering and technical careers to cope with scenarios specific to these careers (e.g. Scrum sprint meetings) among other initiatives. The WIE committee has also launched its new WIE Ambassadors scheme, to coincide with and celebrate International Women's Day this year with a focus on career development.

Young Professionals

With a team of 15 volunteers from industry and academia, the group is focused on hosting exciting events that generate interest and motivate members to develop their technical, interpersonal and leadership skills. Over the past 4 years, the Affinity Group has transformed itself from a fairly low base to a young vibrant group within the section, successfully hosting a number of events be it a half-day networking seminar, entrepreneurial bootcamp, or a three-day cross-regional conference attracting some high-profile speakers nationwide along with local as well as overseas attendees.

Special Interest Group on Humanitarian Technology

The first SIGHT project funded was successfully completed in August this year. The project is supporting the sensory activity of autistic children consisting of an integrated platform which promotes collaborative learning (multi-user application) with customisable content. Our SIGHT committee also is hosting the IHTC 2021 (International Humanitarian Technologies Conference) on December 2nd to 4th 2021 (Virtual Confer-ence) <https://www.ihtc21.org.uk/>

Local Groups:

a) Blockchain

Blockchain group was officially launched in February 2020. They plan to continue a series of webinars (6 annually), expand the format of online events (panel discussions, workshops, etc) and organise a virtual group meeting this year. The vision of the IEEE UK & Ireland Blockchain Group is for an active and dynamic forum focused on member value. The aim is to serve as a forum for professional networking, learning, and growth for our IEEE UK and Ireland members in the rapidly emerging Blockchain field and to organise events covering the state-of-the-art Blockchain technology and applications.

b) Future Networks

Future Networks will be formally launched on 25th March this year. The motivation and goal of the group is to foster and promote Future Networks activities in UK & Ireland, enhance visibility of IEEE and Future Network Initiative, increase IEEE membership, and promote public awareness of 5G and B5G wireless technologies among others. They also plan to organise at least one event per quarter.

c) Cybersecurity

This SIG was created early 2020 and it will have its formal launch next quarter. They provide a multidisciplinary environment for sharing the latest trends and knowledge across industry, government, and academia. provides a multidisciplinary environment for sharing the latest trends and knowledge across industry, government and academia. Members are a diverse set of experts, bringing together insights into the technological, psychological and economic challenges faced in information security. So far they have delivered eight webinars and it is expected at least 6 per year.

d) Quantum

This is the most recently formed group. IEEE Quantum is an IEEE Future Directions initiative that serves as IEEE's leading community for all projects and activities on quantum technologies. IEEE Quantum is supported by leadership and representation across IEEE Societies and OUs.

The initiative has developed a project plan to address the current landscape of quantum technologies, identify challenges and opportunities, leverage and collaborate with existing initiatives, engage the quantum community at large, and sustain the Quantum Initiative in the long-term.

The group promotes and co-operates in the educational and technical activities which contribute to the useful expansion of the field of quantum technologies and applications.

Chapters

Our Section currently has 35 of the possible 39 technical societies represented in the UK and Ireland. Those societies which we do not yet have a UK and Ireland chapter are and look to form are:

- IEEE Nuclear and Plasma Sciences Society (NPS05)
- IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society (UFFC20)
- IEEE Intelligent Transportation Systems Society (ITSS38)
- IEEE Product Safety Engineering Society (PSE43)

This year, the Nanotechnology Council Chapter was launched in 2021. The UK and Ireland Nanotechnology Chapter is a sub-chapter of the IEEE Nanotechnology Council (NTC), which is a multi-disciplinary group whose purpose is to advance and coordinate work in the field of Nanotechnology carried out throughout the IEEE in scientific, literary and educational areas. The Council supports the theory, design, and development of nanotechnology and its scientific, engineering, and industrial applications.

The Section has identified and agreed common strategies for all chapters. Below a summary table.

Technical	Contributing to bids / projects
	Deliver related technical webinars
	Publications
Membership Development	Setting up awards
	Support student chapter formation (subsidising student society members)
	Employability (start-ups / accelerators)
Others	Ethics standards/policies. Covid-19 certificates/ roadmap

During the Section Autumn Meeting (hybrid format) on 26th of October, the Chapter Chairs had the opportunity to present its plan of activities for 2022 along with key achievements and member services in 2021. Every chapter also showed their focus areas including goals, KPIs and list of challenges which are used by the Section to develop the strategies and relevant actions to support Chapters requests.

Industry

The United Kingdom and Ireland section has an Industry Engagement Officer, also a Professional Registration Officer, these two key officers ensure we have continuing collaboration with the industry. UK and Ireland Section is currently working on three main scopes:

- Our Industry Forum, through which we have researched and responded to UK industry needs which fell in three areas: re-skilling long standing employees with digital skills; Input to IEEE Standards for new technologies; and ongoing professional development and the demonstration of competence.
- Industry-led activities: technical and non-technical activities planned or organised by our section’s officers.
- Thematic area professional development: helping individuals develop skills that help them to perform as a rounded professional. Key development areas include personal, management, and business skills.

Whilst some of these activities have had to be delayed or put on hold due to the Covid-19 pandemic we continue to develop our offering. A key enabler to increasing industry engineer membership levels in the UK is believed to be the ability to offer Professional Registration as a Chartered Engineer or equivalent through the IEEE. A steering group has been established chaired by Brian Harrington (former Region 8 treasurer), and we have agreed to a path to Associate Membership of the Engineering Council, a key first step in establishing this capability in the next 6 months. Find below the plan of activities:

- Understand relationship between Engineers Ireland and the Engineering Council in respect to IEEE.
- Achieve full understanding of Engineering Council’s “Registration Code of Practice”.
- Complete exploration with chosen Licensed Institutes.
- Work towards an MOU with each of the Licensed Institutes where agreements have been reached.



Industry Delivery discussion with Engineering council (Jan 2020)

Professional Activities

This Committee was revitalised in late April 2021 with a new appointed Section's officer. Below the current plan of activities:

- Developed clear definition and scope of Professional Activities and presented it to Section Chair and Vice-Chair
- Completed background review of PA in the Section and other IEEE OUs.
- Completed IEEE Centre for Leadership Excellence course for PA Chairs.
- Developed a vision and strategy for PA in the Section.
- Liaised with the IEEE Strategic Research team for a survey of professional development needs in the Section.

To articulate a clear vision and strategy, a working group is being created to develop programmes based on actionable insights from the surveys that are being liaised with the IEEE Strategic Research team (survey of professional development needs in the Section).

Section's Best Practices

Since lockdown started, the Section decided to upgrade its Zoom account in order to offer ExCom an alternative to IEEE WebEx to organise and host meetings and webinars for their chapters' events. The Secretary put in place a procedure for Chapter Chairs to request webinars / meetings to have the events set up and receive the necessary guidance to host them. At the same time the webinars are advertised through our Sections channels (eNotice, website & twitter) and the recording is later uploaded on our website to give our members the opportunity to watch the events on demand.

The Section has recognised that delivering a professional-looking webinar or a smoothly conducted meeting goes beyond simply making the technology available. To enable this, it has produced guidance for users, such as:

- Best practice in setting up the webinar
- Pre-webinar checks to ensure that the audio and video are working
- A practice run-through so that the presenter is familiar with the platform
- How to record the event and the permissions required to do so.

The advantage of recorded online events is that an enduring record remains and, in the case of webinars, can be made available on-demand. To take advantage of this new opportunity, the Section has set-up and made available a Vimeo account where the recordings can be uploaded and then linked to the website and social media. To avoid webinar organisers having a significant amount of extra work to do, they simply record the event and make it available on a Google Drive or Dropbox, and then the Webmaster uploads, processes and makes it available. As experience with webinars increases, the Section is further enhancing the production of these webinars by making available front and back slides which are IEEE Section branded so that when a webinar is downloaded from the website, the link with IEEE and the Section remains. By making use of analytics, we can determine which thematic areas produce the most views and downloads which we can use to inform the future direction. In addition, as videos are good website traffic drivers from Google, this is likely to result in more visitor engagement with the Section website.

Chapters and AGs always are looking for representation of volunteers and committee members from different regions. For instance, the Education Society Chapter is co-chaired for two officers from Wales and England with a recent representative in Scotland. Future Network Initiatives (SIG) is another example being co-chaired by two officers, one in England and other Ireland. Before COVID-19, face-to-face events were held in different geographic locations to cover the entire Section (records of Section ExCom meetings can be found on this link: <https://www.ieee-ukandireland.org/section-meetings>), which represents a significant challenge.

Planned activities

The UK and Ireland Section priorities are:

- 1- Getting closer to Industry. IEEE for Industry (Corporations, Government, Individuals).
 - Professional Registration.
 - Industry internship programmes.
 - Follow IEEE industry engagement.
- 2- Engage in IEEE Future Initiatives. New Technology Focus Areas
 - Blockchain, Future Networks, Cybersecurity and Quantum.
- 3- Contributions to Humanitarian activities. Advancing Technology for Humanity.
 - Conferences, events, talks related to COVID-19, IEEE IHTC, Section SIGHT project.

Chapters, Affinity Groups, Special Interest Groups, Future Directions, Student Branches, and Section's officers benefit from a variety of Section's channels to help communicate and disseminate all their activities and events. These advertisements are complementary to the Chapters' channels such as LinkedIn groups, twitter, Facebook, newsletters, etc. The UK & Ireland Section manages mainly three channels: eNotice, Website, and Twitter.

Our Section website is a strong channel to communicate section activities to members. It has vital information for members and continues to be a source for dissemination of member related and IEEE activities. Our Section News column offers a current list of activities (<https://www.ieee-ukandireland.org/section-news/>).

IEEE UK and Ireland Section PES Chapter Forms Women in Power Committee (<https://www.ieee-ukandireland.org/ieee-uk-and-ireland-section-pes-chapter-forms-women-in-power-committee/>). The main mission of Women in Power (WiP) is to advance the world through the creativity and innovation of diverse leadership, and to foster the careers, connections and talent of women in the power industry to achieve their full potential and become leaders of the future.

Regarding Section Awards and Recognition, the Section has three key aspects planned:

- IEEE awards (global) which require to follow a nomination process. Our Awards and Recognitions Officer, Prof. Jan Sykulski, will work through getting these applications submitted when our members meet the requirements.
- Promote members elevations to Fellow grade through our Awards and Recognitions Officer.
- Section's recognition process creation. Nomination forms are being created to encourage CCs, Officers and members to nominate outstanding volunteers in any of the diverse categories available. The second award ceremony will be held during the section spring AGM in April 2022.

The Section is organizing the IEEE International Humanitarian Technology Conference (IEEE IHTC) 2021 to be held virtually from 2nd to 4th of December this year.

IHTC is a Multi-Regional Conference Series rotating between R7 (Canada), R8 (Africa, Europe and Middle East), and R9 (Latin America and Caribbean). This interdisciplinary conference series focuses on showcasing challenges, success stories, lessons learnt, case studies and technological innovation related to achieving the UN Sustainable Development Goals (SDGs),

ICT4D and the application of Humanitarian Technologies (including Disaster Relief and Disaster Recovery) and facilitating engagement by stakeholders from the public, private, education and research and societal sectors around the world.

We place a particular emphasis on facilitating participation and sharing of experiences by key stakeholder groups from low and lower middle-income countries as well as low resource communities.

Established in R7 where previous editions took place in 2014 and 2017, IEEE IHTC 2021 takes place in R8 as a Virtual Conference this year, organised by Volunteers from IEEE UK and Ireland Section (UK and Ireland SIGHT and SSIT IST-Africa SIGHT) as well as Region 8, Region 7, Region 9 and UK and Ireland SSIT, SMC and Systems Council Chapters.

More details here: <https://www.ihtc21.org.uk/>

Section's Autumn Meeting – Hybrid Event – BT Tower Central London

On 26th of October took place for the first time a Hybrid Section Meeting where those ExCom members that couldn't travel had the opportunity to join the event virtually. It was hosted on the top floor of BT Tower, a communications tower located in Central London owned by BT Group. The Event had three sections, in the morning the ExCom meeting where all Section's matters are discussed, after lunch the Chapter Chairs meeting including Affinity Groups and Local Groups. Finally, a Panel Session followed by drinks and networking.

Section meeting records are available at: <https://www.ieee-ukandireland.org/section-meetings/>

The Panel session was titled: "Future Directions of Communications: Vision, Standards and Requirements" organised by [David Law](#) (Distinguished Technologist at Hewlett Packard Enterprise and IEEE-Standards Association Patent Committee Chair), including [Maziar Nekovee](#) (Dean of the AI Institute and Managing Director of the 6G Lab), [Adrian Sharples](#) (Senior Wireless Research Manager at BT Laboratories) and [Stephen McCann](#) (Distinguished Engineer at Huawei). Panel moderated by [Toktam Mahmoodi](#) (Professor of communication Engineering and Director of the Centre for Telecommunications Research at King's College London).

The panel discussed the current and future direction of wired and wireless communications technologies, their supporting standardisation activities, and their requirements.

Find below some photos taken during the event.



