

50th Annual Report of the Council

The Institute has continued to serve the interests of its members through its established programmes in the areas of education, professional development, meetings and publications, and by providing representation in areas such as the Engineering Council, Standardisation, Government Policy and International Affairs.

The Trustees confirm that in the exercise of their powers as charity trustees they have had due regard to the published guidance from the Charities Commission on the operation of the public benefit requirements, and that the aims of the charity are carried out for the public benefit.

The strategic aims remained as:

1. Advise public policy with regard to the impact and nature of acoustics
2. Increase public awareness of good acoustic design
3. Increase understanding of acoustics by other professionals
4. Developing tomorrow's professionals
5. Providing better support for members
6. Increasing members' professional understanding.

To achieve these aims Council agreed the following objectives against which progress in 2023 is listed.

Objective	Progress in 2023
To advise policy makers on acoustics	<p>The Parliamentary Liaison Group (PLG) had a very good year in 2023. It co-ordinated the Institute's response to an Inquiry launched by the House of Lord's Science and Technology committee on the effects of Artificial Light and Noise on human health. Following the submission of written evidence, the IOA were invited to give oral evidence to the Committee in the Palace of Westminster. The final report of the Committee was published in July and this described artificial light and noise as the Neglected Pollutants.</p> <p>The IOA was also invited to give written and oral evidence to the Climate Change, Environment and Infrastructure Committee of the Welsh Parliament regarding their proposed Air Quality and Soundscapes Bill.</p> <p>Members of the Institute continued to attend meetings of various All Party Parliamentary Groups (APPG) including the Parliamentary and Scientific Committee and the APPG on Health Homes and Buildings.</p> <p>The IOA still has the ambition of establishing some form of APPG on Sound and Noise Management and is continuing to pursue the options available.</p>

Objective	Progress in 2023
	The PLG also co-ordinated the IOA's response to Government consultation documents on various issues, and published another briefing note during the year.
Increase public awareness of good acoustic design	<p>The Institute again funded both a Secondary Schools' and a Primary Schools' competition, which proved to be a success raising the profile of acoustics with school children and teachers.</p> <p>The Institute also again sponsored the John Connell Innovation Award.</p>
Create opportunities for other professionals to gain a better understanding of acoustics and its interaction with their specialist field	The Institute continues to liaise with other professional Institutions, including the ANC, CIEH, the Royal Environmental Health Institute of Scotland (REHIS), the Institute of Licensing, the Royal Academy of Engineering and the British Standards Institute. Members participated in various working groups with other professional bodies.
To support school children's understanding of acoustics	In addition to the Schools' competitions, the Institute has continued to fund the Edinburgh Science Festival's outreach programme to schools using acoustics based science workshops. The Institute also worked with SpringPod to fund and participate in online careers in acoustics workshops for just under 1,000 year 12/13 students.
To improve the operational efficiency of the Institute	<p>The Institute has progressed the work on its application for a Royal Charter and is in the process of applying for a Coat of Arms.</p> <p>The institute has conducted a review of its website and its governance structure. The aim is to expand its education provision, provide a better service to members and investigate how it can become a digital based organisation.</p>
To develop mechanisms for supporting members' professional development	<p>The Institute hosted a number of events in 2023, including Synthetic Aperture in Sonar and Radar (Italy), Auditorium Acoustics (Greece), Acoustics 2023 (Winchester) and Reproduced Sound 2023 (Bristol).</p> <p>In addition, numerous Branch meetings were held with a mix of online and face-to-face meetings.</p> <p>The 10% check of members' CPD was completed during the year.</p>

Standing Committees

Bursary Fund Committee

The Bursary Fund was very popular in 2023. It opened for applications four times, and nine applications were received throughout the year. From those nine applications, three were successful in obtaining funding to study the IOA diploma and attend different conferences outside the UK.

In most of the unsuccessful applications the request for funding was made for an activity related to the applicant's field of employment. There was also an application from someone who was not an IOA member and did not complete their registration in a timely manner.

2023 was the first full year of Reena Mahtani as Chair of the Bursary Fund, and the main objectives during the year have been:

- To raise the profile and getting it better known within the membership. This has been achieved through regular updates in the Acoustics Bulletin and in the newsletters. A video detailing the application process has also been prepared and shared in social media.
- Refining and adjusting the rules to avoid scenarios where applicants ask for funding with not enough time for the applications to be reviewed and the bursary paid. This has been done by asking applicants to apply a minimum of three months in advance when applying for funding for conference attendance.
- Setting fixed dates for four individual rounds of funding throughout the year to make the application process easier.

These activities will continue in 2024, as different challenges arise every now and again that need to be addressed.

Education

The IOA Diploma and Certificate courses continue to provide education and training for both members and non-members and to encourage the recruitment of new corporate members.

As a result of grades obtained in 2022/23, the Diploma was awarded to a total of 67 students from two accredited Centres (London South Bank University (LSBU) and KP Acoustics Research Labs) and four distance learning (DL) centres (Bristol, Dublin, Edinburgh and Milton Keynes).

Nicolas Assiotis (DL Milton Keynes) won the prize for best overall performance on the Diploma and the award for the best performance by an Irish student was gained by Deirdre Doran.

The tutorials at Milton Keynes were attended by a proportion of UK distance learners with others participating online, together with the increasing number of overseas DL candidates.

IOA Classroom (Moodle) was used by Diploma DL Candidates for shared and sharing materials. Extensive use was made of the videos produced for blended learning.

LSBU paused its delivery of the Diploma in 2023/24 Diploma academic year but hopes to resume for 24/25. However, we welcomed the return of the University of Derby under the new leadership of Mark Dring. To enable better geographical coverage for the Diploma, in addition to offering the Diploma at its centre in Southampton, KP Acoustics has started a second centre in Manchester using facilities at Salford University. Sadly, following Tim South's retirement and the subsequent involvement of a different department and Faculty, Leeds Beckett University will not be delivering the Diploma in the foreseeable future.

Enquiries for the 2024/25 delivery of the diploma are already coming in for DL and accredited centres. It is hoped that there will be four accredited centres for the 2024/25 academic year including London South Bank University, University of Derby and KP Acoustics Research Labs who will be running the Diploma at their Southampton and Manchester regional hubs having pioneered a block method of delivery.

The Dubai Acoustic Research Laboratory hosted the Diploma Laboratory Module for 8 candidates in 2023 and 9 candidates in January 2024. To meet the Laboratory Module requirements and avoid having to extend studies beyond 12 months, an option of a Virtual Lab School (delivered online by University of Liverpool) was offered in 22/23, the last pandemic year. However, given the removal of pandemic restrictions, in 23/24 all candidates are required to attend laboratory schools in person.

The Irish version of Building Acoustics Measurements certificate (CCIBAM) returned in 2023 in a hybrid format i.e. remote delivery of the theory from the UK followed by practical assessments and written examination on site in Dublin.

The Certificate of Proficiency in Anti-Social Behaviour etc (Scotland) Act 2004 (CPASBA) - Noise Measurement course was offered by Bel Noise courses at two different locations for the first time in several years.

Three of the certificate courses (Workplace Noise (CCWNRA), Building Acoustics Measurements (CCBAM) and Environmental Noise Measurements (CCENM)) continue to be offered twice a year at various centres around the country with CCENM still the most popular.

Three certificate courses are offered only by a single accredited centre. These are CCBAM, CCIBAM and the Management of Occupational Exposure to Hand Arm Vibration (CCMOEHAV). Probably this will continue to be the case unless there is a significant increase in recruitment.

The 2023 numbers of candidates were as follows: CCBAM (19 which is approximately 50% less than in 2022 as the number of course deliveries has halved - SITMA having decided to offer CCBAM inhouse), CCENM (183), CCWNRA (33 which is a significant increase on recent years), CCMOEHAV (14) and CPASBA (15).

Two new certificate courses in report writing and evaluation are being developed but have yet to start. Given the relative lack of interest in the Report Writing Course (until recently) more progress has been made with the Advanced Certificate of Competence in Report Evaluation (ACCRE) which may see its first presentation by KP Acoustics Research Labs in the week commencing 25 March 2024 subject to recruitment.

Discussions are continuing with a view to starting an Environmental Vibration certificate. There have been initial discussions about a Soundscapes course by a potential management committee.

Online refreshers based on the Diploma blended learning videos on Transport Noise, Outdoor Sound Propagation, Room Acoustics, Sound Insulation, Vibration and Human Responses to noise and vibration are complete and are available to IOA members on the website. New online CPD courses in the pipeline include on 'Why CPD?' (Richard Collman), 'Weather' (Jon Tofts) and 'Electroacoustics' (Ludo Ausiello).

Education Committee has expressed concern that the list of Acoustics related courses equivalent to the Diploma to be used for MIOA applications do not contain relevant Physics courses (e.g. that are offered by Edinburgh University) while containing for example a BA in Music Production which cannot be considered to have enough appropriate technical content. This should require further discussion by the qualifications working group with Chris Barlow added as a member.

Benjamin Mosley, a Senior Lecturer specialising in Audio and Acoustics at Leeds Beckett University has been approved by Council as a successor to Jonty Stewart as Chair of Education Committee. He is keen

to re-establish links between Leeds Beckett University and IOA education and training even though this will not be in the immediate future.

The appointment of a full-time post replacement for the Education Manager is in the pipeline for the start of the 24/25 Diploma year.

The Committee continues to be indebted to the support of its members, course tutors and examiners, the work of the Education Manager Professor Keith Attenborough, supported by Education Officer, Helen Davies, Student Support Officers, Fiona Pizzey and Katharyn Holmes, Finance Officer, Julie Clements, and other members of office staff.

Engineering Committee

The Committee met three times during 2023 and held 9 Professional Review Interview (PRI) assessments. In March and June, the committee meetings were held remotely, and a face-to-face meeting was held in October.

Four committee members carried out their first PRI assessment this year having completed the assessor training. Two new members have been invited to join the committee and begin their assessor training in 2024.

Each Institute licensed by the Engineering Council provides a Liaison Officer who is deployed to another Engineering Institution to act as the main link between the Engineering Council and Licensees. At the end of 2023 the IOA's liaison officer has transitioned from carrying out this role at the British Computer Society (BCS) to the Institute of Mechanical Engineers (IMECHE).

An internal audit of Candidate Interviews and registration process was carried out in November 2023. The audit included the review of 6 candidate files in detail, committee minutes and the policies and procedures manual. No mandatory actions were identified, and the audit concluded the registration process continues to serve the IOA engineering community well, with four observations for improvements identified.

During the audit period (September 2022 – November 2023) a total of 86 enquiries for registration were made. As of October 2023, 66 candidates have paid their pre-registration and it is anticipated around 12 PRI assessments will be held in 2024.

The Committee also held a drop-in workshop at the Acoustics 2023 conference in Winchester for candidates to meet and discuss with interviewers/assessors their applications and receive advice. This was a new initiative for 2023 following discussions at the committee on how to encourage candidates throughout the application process.

Further discussions have also been held with Engineering Council regarding obtaining a license toward EngTech registration in addition to CEng and IEng levels. It is anticipated that this license will be applied for following the completion of the apprenticeship scheme by the first cohort.

Medals and Awards Committee

The 2023 awards were as follows:

The A B Wood Medal 2023 was awarded to David Barclay and will be presented at a conference in 2024;

The Peter Barnett Award was awarded to Angelo Farina and was presented at Reproduced Sound 2023;

The Rayleigh Medal to Stephen Stansfeld;

The Tyndall Medal to Joshua Meggitt;

The IOA Engineering Medal was awarded to Richard Bowdler;

The Peter Lord Award to Dundonald Church;

Services to the Institute Award was awarded to Robin Woodward;

Best Diploma Student Irene Rodriquez;

Distinguished Service to the IOA, Chris Barlow and Jim Griffiths.

The presentation of the following awards was delayed due to Covid 19 and were presented at an awards lunch at the Oval in April 2023 along with the 2023 awards not presented at conferences:

The Rayleigh Medal to Jian Kang (2022);

The Bob Peters Award to Keith Attenborough (2022);

Young Persons Award for Innovation Eric Ballestero (2021);

Promoting Acoustics to the Public Award to Matt Muirhead (2022);

Services to the Institute Award to Hilary Notley (2021);

Best Diploma Student to Daniel Robinson (2022).

Meetings Committee

The Meetings Committee of the Institute of Acoustics met four times during the year. The membership of the committee consists of Mr C W Turner (Chair), Mr K Jackson (Secretary and Early Careers Group Representative), Dr M Lester, Mr P Rogers, Mr C Skinner, Mr R Woodward.

The Committee's focus during 2023 was to continue to support the specialist groups and regional branches in maintaining the meetings output for the Institute. The Committee continued the update to the meetings strategy and guidance notes for the Institute and will be consulting further with representatives of the Groups and Branches to understand how the Committee could best support them.

The Committee was responsible for co-ordinating the organisation of the annual conference, Acoustics 2023. The conference was the first in-person conference organised by the committee since Acoustics 2019 and also welcomed delegates attending in-person in Winchester and at the satellite hubs in Edinburgh and the Middle East.

Other meetings in 2023 consisted of in-person, virtual and hybrid meetings. This year also saw the return of a number of one-day paid meetings including "The Art of Being a Consultant" which partnered with the UK Acoustics Network to host a second day aimed at others not in consultancy called "The Art of Being an Acoustician".

Reproduced Sound was a successful event held in-person but with an option for online attendance for those who were unable to make it to Bristol. The Committee thanks the RS2023 team for encouraging this blended approach.

Looking forward to 2024, Meetings committee will be curating the series of meetings to mark the Institute's 50th Anniversary as well as co-ordinating Acoustics 2024 to be held at Manchester Metropolitan University in September.

The Committee's focus will be building upon the meeting strategy developed in early 2021 and looking to further build on the successful hybrid events held thus far whilst encouraging a return to in-person meetings where possible. To enable this, the Committee will be looking to engage with other similar professional bodies and associations to share experience with organising hybrid conferences.

Membership Committee

The Committee met 4 times during 2023. All were hybrid with most attending in-person at IOA HQ and some joining remotely. This meeting works best when people attend in person. Not least for reviewing applications.

The Committee welcomed Toby Lewis and Joe Bear who have made a valuable contribution. Ilaria Fichera is now studying in Netherlands however she remains on the Committee as Early career representative and joins the meetings remotely.

The CPD Sub-committee continued its work through the year meeting twice to assess members' CPD records and to provide constructive advice where needed. **The Committee continues to be concerned at the lack of response from those selected to provide CPD evidence.** Going forward those who repeatedly fail to comply will be contacted (most commonly by an appropriate member of the Membership committee or CPD sub-committee) to gain an understanding and determine if there are mitigating factors. If they cannot provide a satisfactory reason, then this will be treated as a CoC case as it is a breach of the rules and Byelaws and will be forwarded to Council for action.

The roles of Vice Chair Code of Conduct (Brian Tunbridge) and Vice Chair Continuing Professional Development (Richard Collman) and Vice Chair Professional Standards Committee (David Trew) have continued to help to share the workload and increase the output from this committee. This is particularly the case for Code of Conduct which has again taken a lot of time.

Code of Conduct cases – we had 7 new CoC cases in 2023 plus 5 ongoing cases from 2021 and 2022. The status at the end of 2023 is 9 closed (resolved), 2 in progress 1 about to start awaiting additional information.

In two complaints from late 2022, the respective IOA member was found to be in breach of the code. In both cases this related to lack of competence in a specific aspect of acoustics. They were requested to revise planning reports. A complaint against incompetent work by an Affiliate, was instructed not to use IOA post-nominals or to practice under the IOA banner. A long-standing case from 2021 went to appeal and a tribunal was formed by the Council to review the evidence. They returned a verdict which upheld the original decision by the membership committee of 'no-breach'.

We continued with conference calls with committee members involved with the CoC cases to help maintain momentum on CoC cases and resolve them as quickly as possible.

The revised Code of Conduct Rules were applicable from Feb 2023.

New Grade “Research Member grade of the Institute of Acoustics” was approved at the IOA AGM in September 2022. The terms of membership were agreed by Council in December 2023 and the grade is now live on the website and application forms available from the beginning of 2024.

Applicants will be eligible if they are students registered for MRes, MPhil or PhD in a field related to acoustics. Applications need to be supported by the research supervisor and there will be a reduced fee. Membership of this grade will be limited to the duration of the research or a maximum of 5 years. The use of the post-nominals RMIOA has been withdrawn for the time being and is subject to a decision in the new By-laws, should the Royal Charter be granted.

A fee of £30 will apply, made possible by using only electronic means of communication.

The package of benefits for this new grade is still to be resolved.

Apprenticeship – The Apprentice Technician course started September 2022 at London Southbank continued in 2023, however LSBU is not running the course for the foreseeable future.

The Council agreed to the Membership committee proposal that the apprentices would be eligible for the following grades of IOA Membership:

- TechIOA after one year in, by application, using the Transcript provided by the Education provider;
- AMIOA by application following End Point successfully completed. Following a meeting between Education and Membership committee reps it was agreed that AMIOA would be automatically granted to those attaining “Distinction” and those with other grades would be assessed on a case by case basis; and
- MIOA by application after 3 more years (post End Point successfully completed) working in acoustics at a responsible level and with suitable CPD evidence.

During 2023, 280 membership applications were assessed by the Committee; (2022 – 283, 2021 - 275, 2020 – 255, 2019 - 241, 2018 - 309). Of these 232 were elected to membership of various grades.

Current membership of the Institute now stands at 3092 (2022 = 3055, 2021 = 3037, 2020 = 2988, 2019 = 3007, 2018 = just over 3,000) members. Further details are provided in Table 1

There has continued to be less challenges to the Committee’s decisions (largely due to an improved consistency in decision making and use of standard forms) however the workload of the Committee remains too high - largely due to code of conduct and challenges to membership decisions and is not sustainable. We await to hear back from the new President on this.

The Committee would like to thank Emma Lilliman who has continued to do a great job in the admin support of Membership and CPD.

Initial focus for 2024 will be on continuing to improve consistency of application reviewing and decision making by:

- improving guidance for Membership Committee members particularly around
 - CoC, and
 - in providing good feedback to unsuccessful candidates;
- improving guidance for membership applicants for all grades;
- consolidating guidance and sanctions on what to do with CPD refuseniks.

We are also looking at:

- guidance on our duties to defendant as well as the complainant in code of conduct cases;
- guidance how we can share complaint information with other organizations (ANC / Engineering Council) - there is an increasing area of concern where a complainant who is not satisfied with the outcome of the investigation, approaches another organisation, or who might approach organisations simultaneously to investigate the same complaint.

There will be a change of chair in 2024 with David Trew taking over from Paul Shields.

Publications Committee

Acoustics Bulletin and Supplements

Warners Group Publications has been publishing Acoustics Bulletin since the end of 2017 and it is edited by Nicky Rogers.

In 2023, we produced an 85-page buildings supplement, which was published in a digital only format. This very comprehensive supplement was a long time in the making, involving input from the IOA BAG and almost 20 contributors and was a high-quality publication. Advertisers were keen to support this publication in this format.

Acoustics Bulletin itself continues to evolve and is well received. We focussed on reporting sustainability and now carry the FSC logo on the contents page. At this stage, we still use oil-based ink, and this is unlikely to change in the foreseeable future. We use a compostable wrapper and keep the print run to a minimum to avoid wastage.

Each issue this year (2024) will carry an 'archive' section to commemorate 50 years of the IOA, starting with the 1970s in the Jan/Feb 2024 issue. At the end of the year, all these archive pages will be brought together to produce a 50th anniversary supplement. The history update is being coordinated by a working group, chaired by Stephen Turner and edited, designed and printed by Warners.

We continue to attract well respected authors, although good, strong technical articles can be challenging to find. The system for reviewing technical articles works well and we rely heavily on our panel of volunteer reviewers who deserve huge thanks for the work they do.

Our editor looks forward to working with IOA in 2024.

Marketing

In 2023, Alex Shaida, the IOA's Head of Marketing, led the dynamic development of our marketing activities. Our focus on social media engagement saw continued growth, with strategic advertising on platforms such as TikTok and targeted Instagram ads.

Promoting the Diploma both in the UK and globally proved successful, maintaining strong registration for the 2023-24 diploma cohort and short courses via partner learning centres. To streamline accessibility, the external landing page for the diploma was migrated to our main website.

Our commitment to event promotion resulted in consistently high attendance throughout the year, with events delivered in hybrid and physical formats.

Emphasizing data-driven insights, we intensified the collection and analysis of detailed metrics, particularly in the digital and social media spheres. In summer 2023, we transitioned to Google Analytics 4 for web analytics.

Strategic shifts in digital advertising included increased utilization of HTML5 advertising on Google, driven by advanced AI targeting algorithms. We diversified our primary digital advertising channels across Google Ads, Facebook, and LinkedIn, with a heightened focus on Facebook and LinkedIn for both UK and international markets.

IOA website enhancements in 2023 included expanded video content and improved search capabilities. With a significant portion of our website traffic originating from mobile devices, we are actively developing strategies for effective mobile engagement.

A comprehensive Information Architecture and User Experience review commenced, laying the foundation for a major IOA website restructuring project in 2024-2025. This initiative aims to better serve our diverse membership base and foster connections with key influencers in government, education, and business, while expanding engagement with the wider public.

Advertising

Dennis Baylis continues to oversee advertising through the IOA. Overall advertising income has continued to improve post pandemic:

- Bulletin advertising slightly higher (approx. £1500.00 / 2%) than 2022.
- Web (job) postings – back to “normal” pre-2022 (record year) levels (32% of the total advertising income).
- Web banner advertising continued through 2023 – in addition to the 2 “annual” bookings, there has been one regular with several launch announcements throughout the year and another half a dozen individual bookings. The banners have been a mix of new product and event announcements.

Looking forward to 2023 there is a positive outlook:

- Acoustic Bulletin regulars are re-booked. All but 1 have renewed – this is linked in with a withdrawal from being a Sponsor member (they have cancelled one of their two regular spots).
- There are Bulletin prospects for later in the year.
- There are two annual renewals for web banners and several new bookings for later in 2024.

Committee Membership

Over the course of 2023 the Committee has been joined by June McClung and John Passey.

Alec Korchev and Mike Lotinga resigned this year, and the Committee thanks them for their hard work and support, particularly Mike who served for around 9 years.

The Committee remains reasonably well balanced across the different sectors, although more members from local government would be most welcome.

Thanks are due to all Committee members for volunteering their time and enthusiasm throughout the year and all those IOA members who are part of the Editorial Board for the Bulletin who review the technical contributions prior to publication. Thanks are also due to the IOA Office, Allan Chesney, Alex Shaida, Nicky Rogers and Dennis Baylis. Thanks to everyone who contributes to the Bulletin and other publications with meeting reports, technical contributions, letters, book reviews, blog posts and everything else.

There are several vacant positions in publications that we need volunteers for, this includes: members for the Committee, contributors for the Acoustics Bulletin, reviewers for technical articles and moderators for our various social media platforms. Please contact Daniel Goodhand daniel@goodhandacoustics.co.uk to find out more.

Research Co-ordination Committee

In 2023, three meetings were held, both virtual and in-person in nature. The first and third were virtual meetings held through the Zoom app, March and November 2023. The second meeting was held in-person at the offices of Hoare Lee. Professor Stephen Dance chaired the meetings and Dr Jonathan Hargreaves was the Secretary.

RCC continued to work with the EPSRC UK Acoustics Network+ (UKAN+) led by Prof Kirill Horoshenkov and Prof Richard Craster with particular focus on engagement of Early Career members. Analysis was undertaken of EC/Student attendance at National and International conferences and the relative price of the conference fee covering IIAV, I-INCE, ICBEN and ASA meetings as well as IOA events. It was found that 30% of delegates were EC/Student members except for the IIAV meeting. This meeting had a significantly higher student/EC fee. The number of delegates were back to pre-pandemic levels. UKAN offered second tranche of pilot funding for risk research projects, five in total. Currently, UKAN² is being written to fund the acoustics research network through to the end of the decade.

RCC analysed the results of UKRI funding establishing that £206m of running grants (May 2023) up from £173m in May 2022. Ten of the Eleven possible UK funding bodies funded the field of acoustics in 2023. Most of the monies were to fund ultrasound, £56m; acoustics received £55m; audio, speech, sonic, sound and hearing research £48m; noise £24m; and vibration £20m. On average each grant was valued at £800,000 with EPSRC funding 118 projects, InnovateUK 26 and the MRC funding 23. For the first time the UK received money from Horizon Europe, this funded 14 projects.

Equality Diversity and Inclusion Committee

The EDI WG currently has ten members from a variety of backgrounds. The Chair of the working group also sits on Council and has the role of Diversity Champion for the Institute. The working group was set up in 2021 to:

- Improve inclusion within the Institute to encourage a more diverse membership and increased participation at meetings, consultations, events etc.;
- Improve inclusion in the organisation of the Institute to encourage a more diverse Leadership team; and
- Improve inclusion of Institute members within employment to encourage a more diverse acoustics workforce.

The EDI Working Group has prepared a Draft EDI Strategy, which IOA members will be consulted on in early 2024. The aim of the Strategy is to encourage IOA members and leadership to work together to understand the challenges faced by our peers and how we can overcome them or remove them entirely.

The EDI Working Group has also encouraged the President, President-Elect, Immediate Past President and Chairs of Group, Branch and standing committees to undertake EDI training. The training focussed on practical aspects associated with the specific roles.

The Chair of the EDI Working Group provided a session about EDI at the Art of Being a Consultant event, an event aimed at people considering, or just starting, in acoustic consultancy. She was also interviewed for a podcast discussing some of the challenges faced by women in acoustics, and other people in acoustics that do not fit the majority description.

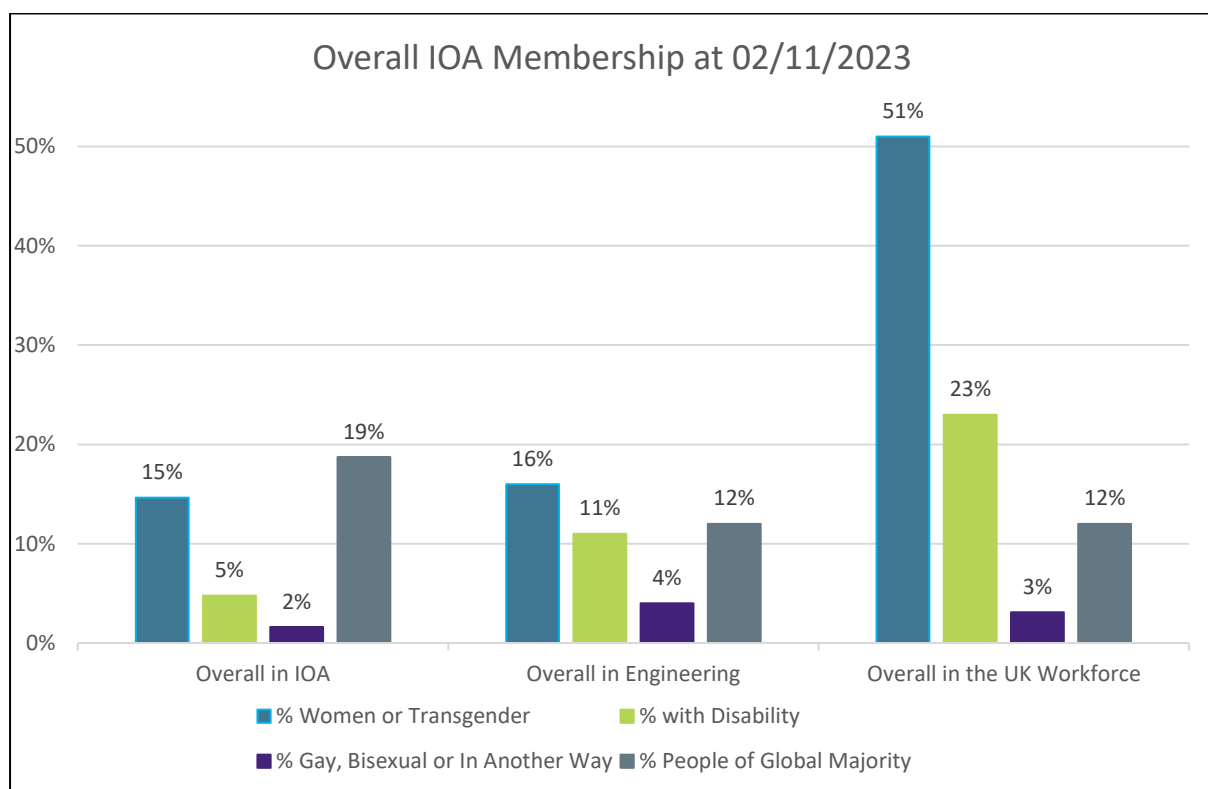
In order to improve the experience of members, the EDI Working Group has suggested areas of improvement in the collection of member data during membership renewals to align the data collection with current best practice. We have also prepared a Meeting Code of Practice to improve

the inclusivity of IOA events and discussed particular suggestions with the Meetings Committee. To further the aim of improving the experience of members, we have also created the IOA Carer’s Fund to enable members with caring responsibilities to apply for reimbursement of the costs of alternative care when attending events. Further discussions have included the timing of meetings with the Meetings Committee, as some members struggle to attend evening meetings, and CPD requests with Membership Committee to suggest changes to improve the equity of CPD requirements.

Our work to publicise various awareness days, weeks and months by writing Acoustics Bulletin articles, articles for the email update or Blogs for the website has continued, and we have created a LinkedIn Dyslexia Support Network.

Finally, to further our goal of collaboration, we have become more involved with the Royal Academy of Engineering to enable two-way learning of EDI development.

The composition of IOA members at the end of 2023 (1st November 2023) is provided below.



This highlights that there is a low proportion of members who are women or transgender, of global majority, consider themselves to have a disability and/or are gay, bisexual or identify in another way.

One of the areas of focus for the working group is how to encourage fewer occurrences of people selecting ‘unknown’ or ‘prefer not to say’ when answering the demographic data collection questions. This will enable us to better understand the composition of the membership and will be an indicator that people feel more confident to provide an answer.

As ever, the goal of the EDI Working Group is to promote the many benefits of diversity, and to improve diversity by improving the inclusivity and equitability of the IOA and what it offers to current and prospective members.

Specialist Groups

Building Acoustics Group

The Building Acoustics Group had a productive 2023. We drafted a new guide to sustainable building acoustic design. We organised a one-day conference on sustainable acoustic design with the themes of Reduce, Refurbish, Re-use and Recycle. We presented the framework of this document and heard from other leading figures in the sustainable acoustic industry, including Ryan Arbabi of Farrat on maximizing low-frequency isolation with the carbon cost, Tim Simmons of Woolly Shepherd on their experiences of the challenges with product certification and sustainability credentials and Elina Grigoriou of Grigoriou Interiors on the fundamental reasons why we must take a sustainable approach in our designs. The event was a success partly due to the hard work from our committee members, including Daniela Filipe, our meetings organiser.

2023 also saw us engaging again with wider IOA groups, including planning for 2023 annual conference, successfully held in Winchester. We ended the year with the publication of our Building Acoustics Supplement, with a vast range of contributions from throughout the industry to enable a fantastic window into building acoustics.

We look forward to building on this success in 2024 with further meetings and consultations on guidance documents planned. If you want to contribute to the work we do, please reach out – we always welcome thought and input, and we're particularly keen to receive abstracts, papers and ideas for conferences. You can contact us on BAG@ioa.org.uk.

Early Careers Group

Josephine (Josie) Nixon has remained Chair of the Early Careers Group (ECG) and Diogo Pereira has remained secretary for the ECG throughout 2023. The number of representatives has remained steady in 2022; the group currently has four vacancies which we will focus on filling in 2024 along with the relevant committees. The group committee meets quarterly – In 2023 all meetings were held online, but the proposal is to revert to three online and one in person meeting for the following year. We are hopeful to proceed with two hubs (e.g. London and Manchester) to assist people travelling for the in-person meeting.

The ECG organised a number of social networking events in 2023, the first one being held in February. This event was held in London at Bloomsbury Bowling Alley on the 20th and was sponsored by SLR Consulting. The social saw over 20 ECG members come together for an evening of bowling, karaoke and fun. It was a great chance for networking and promoting the IOA as well as the ECG.

Earlier in the year, the 'Art of Being' (AOB) conference was undertaken at the Little Ship Club in London in April 2023. This year the AOB conference, was held over 2 consecutive days - the 'Art of Being a Consultant' organised by the IOA ECG on the first day (20th) and the 'Art of Being an Acoustician' organised by UKAN+ was held on the second day (21st), as a joint venture. Both days had a great turnout, with a mixture of students and consultants starting their acoustics' career. The days and its contents complimented each other nicely with positive feedback received for the two events. Both conferences ended with a social networking event with a chance for people to catch up over a drink and get to know each other more.

The webinar sub-section of the ECG is continuing to arrange webinars roughly once a month, with a summer break, as well as looking at in-person networking and social events. The webinars cover a range of topics from specific standards, unique topics and soft skills. These seem to be well attended

by a variety of people and the day/time of the webinars are changed so as to enable as many people as possible to join. The webinars are often recorded so they are uploaded to the IOA online CPD library/webpage. The below webinars were provided in 2023:

- 18 January 2023 – Wind Turbine Noise
- 14 April – Noise Impact Assessments for Quarries and Mines
- 23 May – An Assessment of the Effects of Noise and Vibration from Onshore Ground Investigations and Load Testing on Seahorses in the Blackwater Estuary
- 29 June 2023 – Sustainability and Acoustics
- 3 November 2023 – Experimentally-Tuned Synthesis of a Thin Plate
- 27 November 2023 – Impact Sound Insulation of Balconies
- 12 December 2023 – CPD-Why it Matters?

The ECG helped to organise a full day session on Tuesday, 17th October at Acoustics 2023, looking at a range of topics, including standards, and a fantastic presentation from the secondary school's competition winners. The sessions were finished with a panel discussion from the Environment Agency. The buddy scheme was run at the conference and was organised by the ECG. The ECG also hosted a social event on Sunday, 15th October, sponsored by Getzner, which was well attended and gave buddies and mentors a chance to meet before the conference and for ECG members a chance to meet others in a similar career stage. The event was well attended, with other IOA members coming to meet the ECG members, as the evening went on, allowing for greater networking in an informal setting.

The Students Representative initiative has continued throughout 2023, with some growth. The sub-committee is now chaired by the Research Coordination Committee ECG representative, Alec Korchev, who is also undertaking his PhD part-time and working as a consultant. The proposal is to schedule more talks and increase awareness of the student representative initiative throughout UK universities.

Towards the end of 2023, the Young Person's award has been approved to be changed to the Early Careers Award in line with the Committee's name. This award will still be sponsored by Cirrus and is to be given annually (rather than every 2 years).

We have continued to publish a regular column in the Acoustic Bulletin dedicated to Early Careers' members and we are aiming to continue to do so. The column has introduced members of the ECG committee along with the reasons why they decided to join and what benefits were gained from being an ECG representative. The ECG also advertised vacancies and publicised the different activities that the group have undertaken.

We have continued to reach out to other organisations to exchange experience and ideas. The formal arrangement with the ANC's Future Acousticians Group and with the EAA's Young Acoustics Network allows each party to attend the other's meetings and coordinate events continuously. The ECG also continually engaged with UKAN+ (e.g. Student representative and AOB).

Plans for 2024:

- Work on all of the above items will continue with particular emphasis on the webinars, Student Representative initiative and liaison with the IOA branches/committees/groups and EDI group. The ECG will look to continue to organise social events, especially with the 50th celebrations and promotions occurring in 2024.

- The ECG will also be organising the Art of Being a Consultant & Art of Being an Acoustician in March 2024, alongside UKAN's Early Careers Network and hopefully the ANC Future Acousticians Group. Continuing to grow networks between other committees/organisations within acoustics.
- To arrange a student event, to help promote the student initiative and introduce existing students to the IOA, including the president and president-elect, allowing students a chance to network.

Electro Acoustics Group

The main activity of the Electroacoustics Group during 2023 was the organisation of the 39th annual Reproduced Sound conference. The conference was held at the Bristol Hotel, Bristol, in November (14-16th). Many interesting things happened during the three days, starting with the first event of the programme where Audioscenic, a company based in Southampton and founded by a former recipient of "best paper award" engineer, Dr Marcos Simon, involved the audience in brilliant examples of 3D sounds for gaming and mixing. This was followed on the plenary session on Wednesday by the traditional Peter Barnett Memorial Award which was granted to Prof Angelo Farina from University of Parma, for his extensive contribution to the field of measurements and architectural acoustics. Another award was granted as well, to Prof Jamie Angus, for her life-time achievements and contribution to the signal processing community and to the AEG group.

The conference was still a hybrid event, with most of the presenters being gathered at the venue, and with the usual interactive participation from the online community thanks to well-rehearsed use of Mentimeter to manage the Q&A sessions. Also, thanks to John Taylor, Andy Horsburgh, and the A/V team, who worked with the impeccable support provided by d&b audiotechnik, for helping enable all the event to be streamed.

The venue selected for the social event in 2022 was confirmed, and it again proved to offer a wonderfully relaxed environment for the attendees to network and discuss about the topics presented during the conference. Some improvised music was provided by the chair and some "loud" volunteers, suggesting that for the next edition a proper musical jam session would be another way to celebrate the 40th anniversary of the conference.

Little changes in the committee were approved during the AGM, seeing Roberto Magalotti stepping down and a new candidate, Christopher Spear, from B&W, taking his place. Very good discussions were stimulated by a remarkable session about hearing and hearing losses, as well as by the regular usual diversity & inclusivity panel. Both will certainly bring updates for the 2024 edition as well.

All of the meetings of The Electro Acoustics Group committee in 2023 were carried out online on Zoom. These took place in January, May and September, and were mostly dedicated to the organisation of the conference.

For the 2024 edition a change of venue is still under discussion, and will be finalised within reasonable time to prepare the event at best, suggesting that, as usual, the Committee is already at work analysing the results of the survey shared amongst the conference attendees, and preparing the best possible RS conference for 2024.

Environmental Sound Group

Following the COVID pandemic there was a global consensus that sensitivity to noise had increased, and a growing value attached to quiet soundscapes. The ESG committee was joined by Chris Christofis, Wokingham Borough Council, to maintain local authority representation, and Chris contributed to the first of the new Environmental Sound Group Updates for the IOA Bulletin in November.

The Committee launched quarterly ESG meetings for members on topical subjects. The format is online (or hybrid) at lunchtime with a short paper followed by structured discussion with any consensus views to be reported. The ESG Winter meeting, arranged by Salford University with a presentation from the Environment Agency on their BS4142 Method Implementation Document, was held in December, and was a huge success with 264 attendees.

The Annual Conference programme in October continued our progression into the area of soundscapes which will be a strong theme for 2024 and will feature in our ESG Spring meeting in March.

Measurement and Instrumentation Group

During 2023, the Group has hosted two meetings, and produced five articles for the Acoustics Bulletin.

The one-day meeting held via Zoom in April used our 'Ask the Expert' format. Designed as a forum for members to ask burning questions about sound & vibration instrumentation, over 70 members registered. The meeting was chaired by Simon Bull with his customary skill, and we send my thanks to those members and participants who contributed. The meeting was recorded and should be available on the IOA website.

The M&I Group hosted a session at ACOUSTICS 2023 including a follow-up 'Ask the Expert – Live!' which produced several tricky questions and was again a success. We have planned a 'traditional format' one-day show-and-tell meeting for February 2024, with a combination of papers and practical workshops on the subject of building acoustics and calibration of building acoustics instrumentation, in co-operation with BCTA.

Over the past year, the Group's Committee members have continued to contribute to Instrumentation Corner, the latest being No 86 in the November/December 2023 issue on 'unusual' noise standards entitled 'The birds and the bins - sound power and the rural landscape' by Mark Dowie. Other issues covered include measurements of impulsive and gunshot noise organised by Charles Greene, analysis of WAV files by John Shelton, Noise Barrier standardisation by Giles Parker, and Sound level sample intervals and context by Tony Higgins.

All of these papers form a historical reference section which can be accessed in the M&I group pages of the IOA website, and also via a public link on the IOA home page. A full schedule is planned going forward, but we welcome suggestions for future subject matters.

With a couple of members standing down, we have refreshed the Committee by bringing on board some new blood who hopefully will be able to provide a new slant on instrumentation issues as well as contribute to future IC articles!

Our thanks go, as ever, to all members of the Committee for the active roles they take in all aspects of the Group's activities.

Our honorary secretary Sue Dowson continues to provide the administrative glue which the Committee could not do without, we thank her for her professionalism, and best wishes for her continued good health.

As the Chair John Shelton's own retirement approaches, it is his intention to step down as chairman of the Committee during 2024, but he will continue to take an active role.

Musical Acoustics Group

The Musical Acoustics Group committee communicated regularly via email and held one virtual meeting over the course of the year, as well as the eleventh consecutive Annual General Meeting held in-person during the IOA Annual Conference in Winchester, October 2023.

At the Institute of Acoustics Annual Conference, the Musical Acoustics session attracted nine papers, a full day of presentations. The in-person presenters were Peter Wheeler, Thea Strather, Erdem Atbas, Andrew Morgan, Jonathan Kemp, Patrick Gaydecki, Seb Duran, Ludovico Ausiello, Jiaxyo You. This was a fantastic vindication of Mike Wright, David Sharp and Murray Campbell’s decision to resurrect the Group in 2012.

The year finished with the Committee working together to produce an updated history of the Musical Acoustics Group for an upcoming issue of the Acoustic Bulletin.

Our thanks go, as ever, to all members of the committee for the active roles they take in all aspects of the Group’s activities and a special thanks go to Patrick Gaydecki for joining the Committee. We hope that 2024 brings Musical Acoustics back to the fore with the support of the new UKAN² EPSRC grant.

Noise and Vibration Group

The Noise and Vibration Engineering Group comprises members of the Institute of Acoustics with a particular interest in assessment and control of noise and vibration. The aim of the group is to provide a forum for members to exchange information and discuss developments within this general field of interest, including engineering methods for noise and vibration control, workplace noise or NVH assessment, low noise design, source identification methods, source mechanisms and prediction methods.

The NVEG committee organises events of interest to the membership, issues regular communications and represent members’ interests within the IOA and on relevant external bodies.

Review of 2023

Event	Date	Type	Attendees (Approx*)
The IEA HPT Annex 51 “Acoustic Signatures of Heat Pumps” Final Results and Follow Up – Dr Christoph Reichl	22/02/2023	Online	312
Everything Vibration Isolation: From Specifying HVAC System Applications for Semiconductor Manufacturing Plants to Structural Isolation of Buildings - Steve Fey, Mason Industries, New York	03/05/2023	Hybrid	112
Managing Environmental Noise on the High Voltage Electricity System – Richard S Morris, National Grid	20/09/2023	Online	210
Noise and Vibration Engineering Group Session at Acoustics 2023 in Winchester	17/10/2023	Hybrid	N/A

In-line with the IOA's goal of hosting more physical meetings, a hybrid event took place on Wednesday 3rd May 2023. This was shown to be the most poorly attended meeting of the year. The NVEG committee, therefore, has a preference for online only meetings for 2024, with the exception of the IOA's 50th Anniversary event, which is intended to be in-person only.

Public and Parliamentary Liaison Group

The Public and Parliamentary Liaison Group has had a busy year in 2023, renamed from the Parliamentary Liaison Group to broaden its remit to include public information, in a recognition by our President that a more external facing effort was needed by the Institute. The name change was communicated through the main event of the year, which was providing evidence to the House of Lords select committee of the Science and Technology committee on Artificial Light and Noise effects on Human Health. Stephen Turner and Peter Rogers gave evidence, and the resulting report that concluded noise was the forgotten pollutant. This prompted a Government response which acknowledged that noise pollution remains a priority. The PPLG also continued its efforts to produce timely and relevant short briefing notes, which it did on Air Source Heat Pumps (jointly with Chartered Institute of Environmental Health) and also on Acoustics and Greening. A further note on Low Frequency noise is due and goes towards providing a growing resource which is available to decision makers on the Institute website. Looking forward the aim is to galvanise support from members of both Houses to form an All-Party Parliamentary Group on Noise, Sound and Health once the upcoming election has been settled. This will aim to look at emerging issues of the day, which affect the public and to make aware decision makers of how acoustics is relevant in delivering a sustainable future for humans.

The Committee has expanded, but extensively is run online with at least an annual meet up and ongoing circulations as things arise. Those interested in getting involved please contact the Chair.

Physical Acoustics Group

The Group supported the dedicated physical acoustics session at Acoustics 2023 but was otherwise dormant in 2023 due to lack of committee members.

The Physical Acoustics Group is continuing to actively look for new members to join the Committee to increase its engagement activities for 2024. The group will continue to support the annual conference of the IOA in 2024, and will look to expand our engagement with the Institute of Physics - Physical acoustics group with a view to co-host events.

Senior Members Group

The Senior Members Group held two virtual meetings and its AGM in September 2023 despite the continuing challenging times and the geographical spread of its members. In addition, during the year a technical visit was arranged by the SMG.

Both virtual meetings covered were well attended.

The presentations entitled 'Journey of An Acoustical Consultant' by Rupert Thornely-Taylor and 'The Reluctant Acoustician' by Roger Tompsett gave an insight on the career paths of these two distinguished speakers.

A technical visit to Sound Technology in November attracted a cross section of delegates despite a low turnout including last minute cancellation of some registered attendees. All delegates enjoyed a very interesting and informative day.

For 2024 the SMG has identified potential speakers from overseas for its virtual meetings that would appeal to a wider range of both SMG and non-SMG members, particularly those from the Early Careers Group, than has previously been achieved.

Sound, Noise and Health Group

The Sound Noise and Health Group (SN&HG) is the youngest specialist group in the IOA, established in 2022. Its main aim is to raise awareness of the evidence on the human health effects of sound and noise amongst IOA members and beyond.

In January 2023 the House of Lords Science and Technology Committee launched an Inquiry into the effects of light and noise pollution on human health, with a call for written evidence and 13 subsequent oral evidence sessions. Members of the SN&HG committee played an instrumental role in compiling the scientific evidence to inform the IOA's comprehensive written evidence submission (available on the UK Parliament Committees website, Written evidence (ALN0064)). The Institute was then invited to give oral evidence (delivered by S Turner, Immediate Past-President and P. Rogers, chair of PLG and SN&HG committee member). The SN&HG committee provided support for the preparation for the oral evidence session and for a supplementary written evidence (ALN0093). In addition, four SN&HG committee members also gave oral evidence to this Inquiry in relation to their respective areas of expertise.

Another important milestone for the SN&HG was the delivery of a parallel session focused on health effects at Acoustics 2023. Acoustics 2023 was the first annual IOA conference with a parallel session dedicated to the health effects of sound and noise. The number of abstracts submitted for the session exceeded the available slots, and on the day a lot of the talks saw a packed room with some delegates having to watch from the doorway. This was a very encouraging start for the group, and a clear indication of the growing interest in this field amongst acoustics researchers and practitioners. A summary of the session can be found in Acoustics Bulletin Volume 50 No. 1. The cherry on the cake for the group's main interest was a keynote speech by Emeritus Professor Stephen Stansfeld, who was awarded the IOA Rayleigh Medal 2023 for his world-leading work on noise and health throughout his career.

Other activities by the committee included several Bulletin articles to raise awareness on noise and health, and feeding into a number of consultations, including the Welsh Government's Environment (Air Quality and Soundscapes) Bill consultation.

The Group's annual AGM was held at Acoustics 2023, 13:05 TO 13:16, 17/10/23, Guildhall Winchester. The Chief Executive Allan Chesney, the President (Alistair Somerville) and Immediate Past President (Stephen Turner) were present. The Committee were voted in by 6 members to continue, with no abstentions and no against. The Committee strikes a good balance of interest from public bodies, private sector, academia and third sector.

Speech and Hearing Group

The group had a very quiet (sorry for the pun !) year in 2023, only hosting one session at the Acoustics 2023 conference (see the report in the January/February edition of Acoustics Bulletin) and with the Committee meeting just once in December 2023. Philip Harrison stood down, both from the role of Group Chair and from the Committee after being a member of the latter for many years, and Gordon Hunter returned to the role of Group Chair in an acting capacity at least until the next Group AGM.

Members of the Committee continue to liaise with other institutions such as the British Standards Institute, the UK Acoustics Network, the British Society of Audiology and the UK Hearing Conversation Association), other specialist groups (including the Building Acoustics Group and Musical Acoustics Group) and local branches of the Institute regarding topics of mutual interest and a possible joint session with the Building Acoustics Group at the Acoustics 2024 conference is in the early stages of planning.

Underwater Acoustics Group

The UAG committee met (online) on the following dates in 2023:

- 13th January
- 12th May
- 2nd October

In addition, the UAG AGM was held on 30th October.

At the AGM, a new Chair was elected after Gary Heald stepped down from the UAG Committee Chair, after first joining the Committee in 1994. Since 1994 Gary has had several roles. The Committee expressed thanks for Gary's service and wished him well.

In January 2023, the Committee started planning for the International Conference on Underwater Acoustics (ICUA) 2024 to be held at the University of Bath from 17th to 20th June 2024. Philippe Blondel is the conference Chair. Plans are now well advanced for this conference, which is now open for abstracts.

Following receipt of nominations, the UAG committee forwarded a recommendation that the AB Wood Medal for 2023 be awarded to David Barclay. The IOA Awards committee endorsed this recommendation, and we hope to present the award at the ICUA 2024 conference.

Gary Heald was the chair of the SAS and SAR conference held in Italy in Sep 2023. Gary was very pleased with the proactive organising committee and that the conference was a success. A total of 42 papers were submitted.

Several members of the Committee are on the ISO TC43 SC3 (Underwater Acoustics), and are helping develop new ISO Standards, and Stephen Robinson is the Chair of this group. ISO TC43 SC3 have just recently established a new Working Group (WG) on standards for aquatic bioacoustics and are currently looking for expert members from the UK to contribute. There are three Draft International Standards which are available for comment by national committees. These are:

ISO 17208 part 3 (ship noise measurement in shallow water)

ISO 7447 (testing of noise abatement barriers for marine pile driving noise)

ISO 7605 (measurement of ocean ambient sound)

The IOA has suggested that the IOA Diploma is extended to include underwater acoustics. The UWG has identified a number of underwater courses which we could consider for the Diploma. We need to determine the IOA Diploma requirements and the criteria that the courses need to meet to be suitable for the Diploma. Considerations for this are ongoing.

Branch Reports

Central Branch

This annual report covers the activities of the Central Branch in the Calendar year 2023.

The following meetings were held in 2023:

1. Whole Building Isolation of Existing Structures: Repurpose, Not Rebuild - Adam Fox, Maon 26.01.23. Attendees 84 Online, 10 in person
2. Setting Acoustic Conditions for Sustainable Developments. Richard A Collman & Mike Hewett, Acoustical Control Consultants Ltd 22.03.23. Attendees 44 Online, 11 in person
3. Central & Yorkshire & NE Branch: An evening on Vegetation and Acoustics Annoyance Due to Road Traffic Noise: (1) An Attempt to Describe the Effects of Non-Acoustic Factors, Truls Gjestland, Sintef, (2) Vegetation for Noise Control: Exploiting the Physics, Prof. Keith Attenborough IOA (3) Exploring Vegetation and Acoustics from the Perspective of Multi-Sensory Interactions, Prof. Jian Kang UCL. 27.04.23 Attendees 104 Online, 10 in person (MK)
4. How to reliably protect buildings from vibrations, Ben van Breda and Johannes Hagspiel, Getzner. 25.05.23 Attendees 34 Online, 4 in person.
5. Scaling Impact with Open-Source Hardware - Experiences from AudioMoth and Open Acoustic Devices, Professor Alex Rogers, The University of Oxford, 26.06.23. Attendees 51 Online, 8 in person.
6. An Evening on the Sound of Future Transport (1) Using a Soundscape Approach to Deliver Inclusive Acoustic Vehicle Alerting Systems (AVAS) for Public/Shared Transport Vehicles Grant Waters, Anderson Acoustics. (2) The Sound from Electric Vehicles on UK Roads Matt Muirhead, AECOM. (3) Development of an Online Listening Experiment to Explore the Perception of the Sound of Medical Delivery Drones in Scotland Dr James Woodcock, Senior Arup. 24.10.23. Attendees 121 Online, 12 in person
7. Lessons Learned Managing Noise & Vibration on HS2, Currently Europe's Largest Building Site, Andrew Bird ALIGN JV; Graeme Hales ALIGN JV; Alex Champion RWDI; Andrew Medley HS2 Ltd. 06.12.23. Attendees 48 Online, 14 in person

In reflecting on the past year, the Central Branch extends its sincere gratitude to our guest speakers who have generously devoted their time and expertise to prepare and deliver an array of captivating presentations. The talks presented throughout the year were diverse and interesting. They also spanned a wide range of topics, providing our members with valuable insights and knowledge across the field of acoustics. A notable change in our event format this year was the increased emphasis on "evening on" meetings, featuring three speakers sharing their expertise on a common subject via short 10-15 minute presentations.

As we look ahead to 2024, the central branch anticipates celebrating the 50th anniversary with a dedicated meeting that reflects on the achievements, growth, and contributions to the field of acoustics. Additionally, in line with our commitment to inclusivity and accessibility, we will continue to host events using hybrid meeting options, ensuring that as many members as possible can participate in our activities, whether in person or virtually.

Eastern Branch

With more access to other meetings from other branches available through the IOA Zoom portal, the number of our Eastern Branch meetings were again scaled back.

Our first meeting was due to be provided by Adam Fox of Mason UK, but was rescheduled due to the birth of his child. Congratulations to you and your family Adam!

Tim Patzke from Pliteq UK Limited gave us a very interesting presentation on the prediction and modelling of both noise and vibration for gym flooring designs, in accordance with the new ProPG Gym Acoustics Guidance document. The session included the main design considerations when designing a new gymnasium, along with some case studies of some of their more recent experiences in the real world. It was an excellent presentation, which provoked some interesting questions afterwards. The questions did not last too long though, as this was our first (and last al fresco meeting)! The evening was finished with a presentation on Pliteq's prediction modelling software, which is used for predicting the on-site performance of various floor build ups, based on a large library of previously obtained transfer functions.

Next up, we had Giles Parker from Sound Barrier Solutions. Giles is the Managing Director of Sound Barrier Solutions and has more than 25 years of experience which was clear from the quality and content of his presentation. There was a brief introduction to the noise barrier specification document LD119 from the DMRB and other regulatory documents and then the presentation went on to look at some of the pitfalls of the more typically specified timber acoustic barriers, which seem to be commonplace for the vast majority of residential developments alongside major transport links. We all understood that the more lightweight timber barriers would need more of an involved maintenance programme than their steel or masonry equivalents, but the rate at which the timber barriers can deteriorate was genuinely surprising! A lot more important than you might think at first, as the barriers should be designed with a 40+ year life span. The presentation was kept entertaining with outtakes from some of the old favourites, from Only Fools and Horses and Father Ted, which were very well received.

Once Adam Fox had recovered from the birth of his child the original meeting was rescheduled and happened in October. Adam presented on the practicalities of low frequency vibration isolation. As always, Adam's presentation was highly motivational and entertaining, focussing on building isolation, box in a box solutions and isolation for plant items. After a brief revision of vibration isolation, he shared with us 3 case studies. The first was a new floor in Cambridge University which had a VC-D requirement within the room and VC-E in the adjacent rooms. Quite challenging as the room with the new floor was used for destructive testing of CLT, concrete and steel frames and the room next door was a nanotechnology research centre. The second case study looked at the new flooring and MEP isolation design at a large semiconductor fabrication facility in Ireland. Approximately 3,800 mounts, 1,600 hangers and 400 expansion joints were utilised in this successful installation. The scale of this facility and the magnitudes that were incorporated into the design was overwhelming! The final case study showed the importance of air springs, which achieve levels of isolation far lower than spring or elastomer isolation, which achieved VC-G isolation, down to 2 Hz.

Our last session of the year was a presentation from Ben Van Breda from Getzner. A bit of a technology tester as this was a hybrid event, with the main presentation being given remotely by Alex Born of Getzner USA Inc. Having gotten over the technical hurdles, the presentation was about reclaiming the air, with a case study of Boston's first "air rights project" for over 30 years. Air rights refer to the development rights above surface level, with a view to maximising a developer's potential. Obviously though, in a built-up environment such as Boston, the issues with vibration from underground and over ground transport systems become apparent for high rise buildings. The presentation from Alex began with an overview of the foundation and column isolation designs, and then the installation of the various types of the vibration isolation materials used on this project. The evening finished with a curry and some drinks at a local restaurant.

The number of attendees at our meetings are still lower than those prior to the Covid-19 pandemic. We are sure however, that offering the majority of our meetings in a hybrid format then the attendance will grow into 2024. We are looking forward to an exciting and busy year in 2024 and the Committee actively welcomes more of our local consultants to attend in person, should they feel comfortable, or online where it is offered.

Irish Branch

No Report

London Branch

Last year we were back in the swing of it with all evening meetings being in person with hybrid online joining capabilities. We had a full programme with 10 evening talks along with two-day visits. One being a Joint London Branch and Early Careers Group Event Visit to SRL's acoustic testing laboratories along with a visit to L-Acoustics Headquarters for a demo of their room acoustics enhancement and object-based audio systems.

In January, the LSBU Students returned to kick off the year presenting their final year projects. We had presentations from Leo Fernandez looking at building vibration from music festivals. Dan Hagan presented his project which investigated BS4142's reflection correction. Followed by Matt Hayes, who was looking at acoustics within a complex learning disabilities school.

Richard A Collman & Mike Hewett of Acoustical Control Consultants Ltd joined us in February to discuss 'Setting Acoustic Conditions for Sustainable Developments.'

March saw Dr Torija Martinez present on the 'Measurement and assessment of UAV noise'.

This was followed by Prathmesh Thakkar from Kef 'Addressing bass in rooms for critical applications'.

I had the pleasure of attending the IOA's Award and medals presentation where our past chair Jim Griffiths was presented his long service award for his services to the IOA and the acoustic industry.

We headed back here to London South Bank university in May with Dr Hydar Aygun's talk on 'Acoustic wave propagation through natural and conventional porous materials.'

Then the following month we had various MSc Student presenting their projects which included:

James Michael Green on 'Determining a subjective response to wind turbine amplitude modulation against objective analysis'.

Edward Damian Crofton-Martin's 'Performance Evaluation of Outdoor Windshields'.

And Acoustic properties of cob as a building material by David Kendal.

In September we were joined by Dr. Ir. Hamid Masoumi and Sarah Huskie from CDM Stravitec for a talk about Vibration isolation: Designing for multiple lifetimes which was followed by a sponsored social event.

Chris Howe from Polytec Ltd joined us in Oct to discuss 'Non-contact vibration measurement - From bees to bridges to Bond: Where does non-contact Laser Doppler Vibrometry fit into today's measurement sphere?'

In November Ben Burgess from Buro Happold joined us to present on 'Building Acoustics Sustainably: Practical Considerations'.

We ended the year with a presentation on the ‘Pitfalls of vibration control design,’ a presentation by Adam Fox of Mason UK. After which we had another sponsored social.

The Committee and I would like to extend our thanks to all the speakers who joined us over the past year.

The Chair would like to thank all committee members for giving up their time to assist in arranging these events, with particular thanks to Ben Southgate who is instrumental in organising these events and keeping us all in check and John Sails who along with Ben sorts the tech out so we are able to share this online as well as to those who join us in person. The Chair also extend her thanks to AECOM and LBSU for hosting the events. With thanks to the IOA, particularly Linda Canty, for advertising and issuing the notices for all the meetings.

We already have a packed programme for the year ahead including a one-day conference planned in May on AI in acoustics for which there’s a call out for papers, so if anyone has anything they would like to contribute please do look that up as it closes at the end of the month. We very much look forward to seeing you over the coming year and to socialising with you afterwards. As always do look out for information on the IOA website and update your preferences to include the London branch to keep up to date and receive the latest email notifications.

Midlands Branch

The Midlands Branch has been picking up an increase of in-person events during 2023. We held a total of six meetings in the year, five of which were hybrid in-person/online events, and one was online only. The events were as follows:

In March, Aglaia Foteinou of York University presented at Derby University on the Acoustic Reconstruction of the House of Commons. Towards the end of March, we hosted a joint hybrid event with the IOA Yorkshire & Northeast Branch on Approved Document O, whereby Jack Harvie-Clark of Apex Acoustics presented in-person at Apex Acoustics in Gateshead, and James Healey presented in-person at Birmingham City University. In April, Andrew Hugill presented at University Leicester on Aural Diversity. In June, Mariana Lopez provided a lunch-time online presentation on Enhancing Audio Descriptions for TV. In July, Dr Pyoung-Jik Lee of Liverpool University presented at Birmingham City University on the acoustics of intensive care units during COVID. In December, we finished the year with a presentation on BS4142 character corrections at the Planning Stage by Matt Torjussen of ANV Measurement Systems, followed by a well-attended post-event meal.

A sincere thank you to all of our 2023 speakers for their informative presentations and support of the Midlands Branch.

Thanks are also extended to the Midlands Branch committee members who make their contributions, often in their own time, and to our members for their ongoing support of the branch. Following the departure of long-term committee members, Heather Billin and Mike Swanwick, we welcomed Matt Torjussen and Izzy MacLachlan as ordinary members (having previously been co-opted) and additionally welcomed Kim Onjun from AECOM as a co-opted committee member. In March 2023, Fiona Rogerson stood down as Branch Chair and the Committee has since appointed Phil Hainsworth as Branch Chair going forward. Phil Hainsworth’s previous role as secretary has yet to be formally re-appointed.

Middle East Branch

No report

North West Branch

The North West branch has been reformed in 2023 after an extended period of inactivity. The newly formed committee members are: David Terry (Chair); Helen Sheldon (Secretary); Zachary Simcox (Early Careers Rep); George Mackenzie (Student Rep); David Waddington (IOA President Elect); Hannah Jones; David Logan; James Woodcock; Marc Fuzellier; Jonathan Grant; Jameel Malik; Jo Webb; Giles Hines; Gethin Manuel, and Simone Graetzer.

It was with sadness that 2023 saw the passing of Geoff Kerry. A former IOA President and one of the IOA's founding members. Geoff was a well-known and in an important contributor to the IOA and to the North West branch's success over many years. In 2024 there will be an event/lecture arranged in Geoff's name, and more information on this will follow in due course.

A branch meeting was held on 30th November at WSP's Manchester office, where Matt Torjussen (ANV Measurement Systems) gave an intriguing and interactive talk titled "*Estimating BS 4142 Character Corrections at the Planning Stage*". The idea of using a simplified auralisation to estimate acoustic character corrections was discussed and tested on a live audience of acousticians. Not surprisingly there was a range of opinion amongst the 34 attendees.

The branch AGM was held in November and the abovementioned committee was formed. Helen Sheldon, Zachary Simcox and George Mackenzie put themselves forward as the secretary, early careers representative and student representative, respectively. The main aim of the AGM was to set up the branch committee and ensure it is functioning for what will be an important and busy year ahead in 2024. There are plans for three or four technical talks throughout 2024 (including the inaugural Geoff Kerry Lecture discussed above) plus a summer event/talk. The IOA conference is in Manchester in September in 2024.

Scottish Branch

Scottish Branch AGM 2023 saw the re-election of two of our long-standing committee members; Cesar Bustos of Arup and Laurent Galbrun of Heriot Watt University, as well as the co-option of a new member Elena Prokofieva of Edinburgh Napier University whose involvement with the AES in Scotland means she will be the main link for the IOA Scottish Branch to the SAAN (Scottish Audio and Acoustics Network). The Committee membership now stands at 10 plus one co-opted member, including a diverse range of people from different backgrounds, with a good coverage of acoustic/noise sectors including consultancy, academia, industry, local authority and regulators.

Throughout 2023 Scottish Branch committee members have been working to liaise with other related groups and organisations in Scotland and beyond and has representatives attend the REHIS organised Scottish Pollution Control Co-ordinating Committee (SPCCC) and the Transport for Scotland Noise Inspection Panel and CPX workshops. Members also attend various other IOA committees including the Parliamentary Liaison Group (PLG).

We have held two technical meetings this year. The first in March 2023 was from Dr Louise Roberts, lecturer in Marine Biology at the University of Liverpool who presented her talk titled, "Shaking up aquatic substrates: Taking lessons from biotremology" to 26 virtual attendees. The second in June 2023 was the extremely well attended talk by Francis McManus, Honorary Professor of Law at the University of Stirling and Emeritus Professor of Law at Edinburgh Napier University on environmental law and noise, which saw a record for Scottish Branch of 128 attendees! Both talks were fascinating and we thank both the speakers for giving up their time to present to us and to the organisers of the meetings.

In April 2023, Scottish Branch members took the opportunity to attend the Edinburgh Science Family Extravaganza at the Edinburgh City Arts Centre. As part of the 2023 Edinburgh Science Festival the IOA were allocated 30 free tickets as a thank you for members volunteering. Members and their children attended what is billed as a “science playground for families” packed with workshops, shows and interactive activities which was thoroughly enjoyed by all.

In November 2023 Scottish Branch members once again volunteered their time to take part in the Edinburgh Science Careers Hive over 6 days at the Museum of Scotland in Edinburgh. Volunteers worked to promote acoustics as a profession, informing and enthusing those young people attending to pick STEM subjects in their National Qualifications and STEM careers beyond that.

Scottish Branch continued in 2023 to contribute to all relevant consultations and to support IOA specialist groups where suitable in their responses and in August 2023 provided a full consultation response to the Scottish Government review on permitted development on behalf of the IOA.

Thanks again to all our committee members for their hard work this year.

Our next meeting on 1st February 2024 is titled, “Passivhaus Lessons learned explaining the basics of Passivhaus including issues around noise” by architect Matt Bridgestock a Passivhaus designer with over 15 years’ experience in the design and specification of low carbon and Passivhaus projects. This ties in well with changes happening in Scotland around Passivhaus and we look forward to it and the rest of 2024.

Southern Branch

The Committee has had another great year with a very busy programme of engaging events with a mixture of virtual, hybrid and in-person presentations. In purely chronological order, we have heard from:

- Chris Steele of the HSE on “Protecting workers hearing at entertainment venues”;
- Mark Standen of Syntegra Consulting on ‘Passivhaus’;
- Angela Lamacraft, Chair of the EDI Working Group for the IOA, on ‘Why EDI? An introduction to the IOA’s EDI working group’;
- Oliver Farrell of Farrat on ‘Building Vibration Isolation’;
- Adam Fox of Mason and Martin McNulty of Hoare Lea provided a ‘Building Isolation Workshop’;
- Paul Reynolds of FSD Active Ltd on ‘Active Mass Dampers for next generation floor structures’;
- Sebastian Woodhams of QinetiQ on “Acoustic measurements of naval platforms”;
- Wilson Ho of Wilson Ho and Associates Limited on “Railway Noise Reduction Retrofits for Curved Tracks”;
- Sarah Huskie and Marina Rodrigues of CDM Stravitec on “Laboratory Measurements of Lightweight Floating Floor Systems on Cross-Laminated Timber (CLT) Slabs”;
- KEF Audio welcomed the Southern Branch to hear about their research and enjoy a tour of the R&D facilities, factory, museum and a chance to listen to KEF loudspeakers for our Christmas event.

We have strived to provide an accessible, diverse and inclusive programme and feel confident that we have given members interesting, varied and high-quality offerings as a result.

As co-Chair last year, and now Chair of a great committee, I am very proud of our achievements over this period and in the last year which have widened the benefits of the branch meeting for all members.

I offer my sincere thanks to all the Committee members who have worked so hard this year and to all the presenters who have given up their time for the benefit of the membership.

Finally, I wish to thank Jack Richardson personally for his years of service as he has decided to end his committee position early due to work commitments to allow someone else to fulfil that role.

South West Branch

It has been a year of change for South-West branch. As noted in the 2022 report several longstanding committee members stood down to make room for newcomers and an EGM was held in January. Dan Pope initially stood down as Chair after ~10 years in the role but at the EGM there were no volunteers as a successor. As such Dan therefore agreed to stay on temporarily for one more year while the new members get used to their roles.

Andrew Jarvis, Chris Duffill and Jon Tofts were all welcomed to the Committee, with Martin Chan agreeing to temporarily serve as Secretary, Aaron Tomlinson and Nikhil Banda both serving as Early Career Reps, Kyle Edwards as EDI Rep, and Tamasine Leighton-Crawford's place on the Committee saved for her during her maternity leave.

In February an online talk on Sounding Erddig: A Country House by Ear, by Jeanice Brooks of University of Southampton and Wiebke Thormahlen of the Royal Northern College of Music was hosted to discuss their work to produce an online library exploring the sonic history of the National Trust run Erddig country house in North Wales.

Meetings to plan upcoming events were held, although for various reasons these were pushed back until later dates. Two Environment Agency talks are planned for the new year, including one on the new MID document.

A branch social was held in Bristol before Christmas and was well attended, with plenty of discussion and ideas for the year ahead.

Welsh Branch

January 2023:

The consultation period for draft Technical Advice Note 11:Noise closed in January 2023. Following 2 forums led by the Welsh branch, to discuss the draft document, a formal IOA response was issued to Welsh Government.

April/May 2023:

Chair of the Welsh branch, Rosie Pitt, contributed to evidence from the IOA towards the Environment (Air Quality and Soundscapes) (Wales) Bill. The IOA broadly supported the Bill and offered advice on certain elements regarding noise and soundscapes and the potential impact of the Bill on consultants and developers.

August 2023

Welsh Branch AGM held on 16th August. Rosie Pitt remained as the Chair of the Welsh Branch Committee. All other committee members also remained.

The main focus of the meeting was held around potential topics and ideas for future meetings and CPD in the coming year. Nick Jenkins of NRW led a short discussion on UK Environment Agencies guidance that will supplement their 2021 guidance.

September 2022 (is there a reason these are 2022 dates?)

A CPD session was led by Martin McVay on the consultation on the draft Noise and Soundscape Plan for Wales. The presentation was followed by a forum for discussing the document and an opportunity to raise concerns. The presentation was well received.

November 2022 (this one too)

A CPD session was led by Jack Harvey Clarke, Peter Rogers and Matt Torjussen discussing Air Source Heat Pumps (ASHPs) the types of ASHPs available, sound power data that manufacturers must present, the prevalence of noise complaints and the acoustic features that give rise to those complaints, and the difficulties facing consumers who seek a quiet ASHP. The event was well attended.

Plans for 2024

The Welsh Branch will continue to support the Welsh Government by responding to requests for consultation particularly around TAN 11, the Environment Bill and the Noise and Soundscape plan. We hope to organise more in-person events later in the year, both social and CPD, including visits to completed/on-site projects. An all-day event with a selection of presentations and networking will be held later on in the year to celebrate the 50th Anniversary of the IOA.

Yorkshire and North East Branch

It's been a quiet year in the NE & Yorkshire branch in 2023. Jack Harvie-Clark took over as Chair early in the Year, with Seena Sajeev remaining on the Committee as the Early Career representative.

We had three in-person events (one of which was a hybrid event, and two in-person only)

The first meeting was:

Occupant comfort & health in Passivhaus homes, Paul Testa, HEM Architects

Tuesday 7 February 2023 at 18:00

This was in person only, and very well attended.

The second meeting was a joint meeting with Central Branch, and we hosted a hub in the NE.

Title: *An Evening on Vegetation and Acoustics*

When: Thursday 27th April 2023, 18:00-19:00

Where: This is a hybrid event with physical hubs in Milton Keynes and Gateshead. The event will also be streamed on Zoom.

Central Branch Hub: IOA Headquarters, Silbury Court, 406 Silbury Boulevard, Milton Keynes, MK9 2AF

Gateshead Hub: Apex Acoustics, Design Works, William St, Gateshead, NE10 0JP

There were three speakers:

Annoyance Due to Road Traffic Noise: An Attempt to Describe the Effects of Non-Acoustic Factors, Truls Gjestland

Vegetation for Noise Control: Exploiting the Physics, Prof. Keith Attenborough

Exploring Vegetation and Acoustics from the Perspective of Multi-Sensory Interactions, Prof. Jian Kang

Our third meeting was in-person only, at:

Zentia (formerly Armstrong ceilings) factory tour

Zentia, Kingsway South, Team Valley, Gateshead, NE11 0SP

Thursday 28 September 2023, 15:00 – 18:00

Since changing from Armstrong Ceilings to Zentia, the company has invested over £30m in its Team Valley, Gateshead manufacturing plant.

For this year we are planning an event in a museum with talks about museum acoustics, at which we will also celebrate 50 years of the IOA.

There will be an online lunchtime meeting to discuss the consultation response to the Government's Future Homes and Buildings Consultation; this will be a joint meeting with BAG.

There will be a roadshow of the new proposals to update BS 8233.

And more to come!

Statistic and Information Tables

TABLE 1: Membership

Grade	2023	2022	2021	2020
Hon Fellow	33	35	34	33
Fellow	151	153	151	150
Member	1967	1958	1911	1861
Associate Member	739	741	770	789
Affiliate	82	79	53	59
Technician Member	120	121	122	122
Student	213	240	295	320
Totals	3305	3327	3336	3334
Founding Key Sponsor	2	2	2	2
Key Sponsor	1	1	1	1
Sponsor	49	46	45	51
Institutional Subscriber	4	3	3	

TABLE 2: Group membership

Group	2023	2022	2021	2020
Building Acoustics	1758	1729	1712	1729
Early Careers	525	484	466	450
Electroacoustics	555	544	537	539
Environmental Noise/sound	1942	1943	1944	1954
Measurement & Instrumentation	926	907	880	882
Musical Acoustics	639	623	604	609
Noise and Vibration Engineering	1430	1405	1380	1403
Physical Acoustics	467	451	430	436
Senior Members	135	131	129	123
Speech & Hearing	434	415	398	398
Underwater Acoustics	365	351	341	336

TABLE 3: Branch membership

Branch	2023	2022	2021	2020
Central	274	274	276	283
Eastern	271	281	282	292
Irish	141	138	137	142
London	956	959	959	992
Midlands	442	424	441	466
North West	463	462	463	483
Overseas	300	294	293	309
Scottish	202	203	199	204
South West	320	322	323	337
Southern	550	553	563	575
Welsh	99	99	96	93
York and North East	262	254	258	272
Middle East	21	14	8	

TABLE 4 Details of employment (interests)

Employment Category	2023	2022	2021	2020
Architectural Practice	476	471	467	477
Consultancy	2085	2064	2075	2127
Education	531	512	510	528
Expert Witness	366			
Industry/Commerce	663	658	674	711
Public Authority	332	350	365	382
Research & Development	787	761	757	792
Retired	84	95	97	100
Other	224	222	217	233

Table 5: EVENTS AND ATTENDANCE IN 2023	
Topics, date and Venue	Attendance
Building Acoustics Sustainably: Practical Considerations 18 April London	51
The Art of Being a Consultant 20 April London	40
The Art of Being an Acoustician 21 April London	15
Synthetic Aperture Sonar and Radar 6-8 September Italy	56
Auditorium Acoustics 28-30 September Greece	142
ACOUSTICS 2023 16-17 October 2023 Winchester	224
Reproduced Sound 2023 14-16 November Bristol	73