

## The UK Acoustics Network Newsletter June 2019

Dear Members

This Network is still growing and now it has over 650 members. Since our last newsletter in May the Network ran or supported 4 important events: (i) 4th Vibro-Acoustics Workshop on Noise and Vibration in Transportation and Transit Systems on the 31<sup>st</sup> of May; (ii) Soundscape Workshop – Overcoming Traditional Acoustic Challenges to Urban Planning and Development on the 25<sup>th</sup> of June; (iii) Ultrasonic and Acoustofluidics Forum on 26/27<sup>th</sup> of June; and (iv) meeting of the Research Coordination Committee of the Institute of Acoustics on the 26<sup>th</sup> of June.



The Soundscape in Practice: Overcoming Traditional Acoustic Challenges to Urban Planning and Development workshop (photo above) was an energetic, lively and informative one-day event. It was attended by 116 people. 17 speakers from industry, academia and the public sector gave talks and state-of-the-art sound demonstrations. There was a poster session. In total 1412 connections

were made between delegates. A film of the event and presentations will be available soon. A follow-up event is planned for 2020.

The meeting of the Research Coordination Committee was important to plan for the future of the Network because at this meeting the strategy was discussed preparing for the end of the EPSRC Network grant in November 2020. There are plans to apply for the follow on EPSRC grant (UKAN+) which, if successful, will continue to support the Network and extend it further to enable the Network to fund high-risk, short-term research projects for which it would be hard to secure alternative funding. Kirill Horoshenkov and Richard Craster are discussing this matter with the EPSRC. They will start writing the follow-on grant application in August this year. We would like to hear views from our members on how a follow-on UKAN+ grant could benefit their research or business. The Institute of Acoustics is highly supportive and willing to take over the legacy from UKAN if the follow-on grant bid is not successful.

This week 70 academic and industrial researchers gathered in Bristol for the Acoustofluidics Forum and Olympics. Over 2 days there were talks on all aspects of acoustofluidics, including diverse application areas such as microfluidic devices, medical diagnosis, chemical microarrays and levitated displays. The Olympics session was a

series of experimental demonstrations of acoustofluidic devices, again covering both university and industrial work. The sun came out in time for drinks and canapes on the Terrace situated on the roof of the new wing of the Engineering Building at the University of Bristol. This was a great place to discuss the finer details of acoustofluidics, meet new people and come up with ideas for new research collaborations (photos below).



The UKAN welcomes members of its new Special Interest Group, Hearing SIG. The principal function of the Hearing SIG is to provide a forum for researchers, engineers and policy makers to explore problems and identify research challenges, related

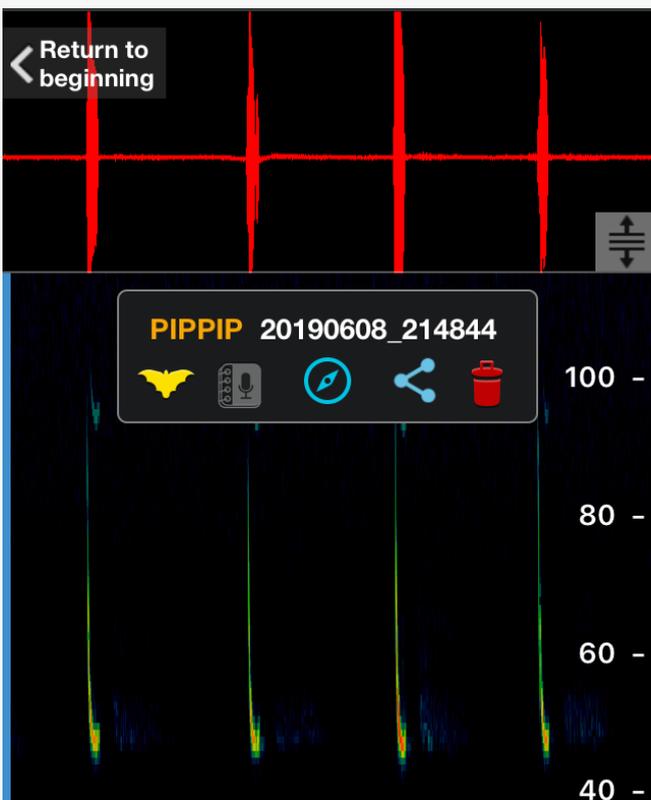
to that area of acoustics related specifically to hearing. Hearing, or sensitivity to sound, whether by animals, humans, or artificial systems, is a wide and dynamic field. It encompasses such areas as: (i) sound source localisation; (ii) sound recognition in challenging acoustical environments; (iii) speech processing; (iv) hearing impairment; and (v) sensitivity to emotions in speech and music. Systems that ‘listen’ range from insects, to birds, to mammals (including humans), to virtual assistants such as Amazon’s Alexa or Apples’s SIRI. However, all of these share difficulties and issues that relate to the acoustical nature of sound and inform requirements for many engineered acoustical systems. At present, we have a group of four people helping to get this SIG working: Trevor Agus (Queens University), Sheila Flanagan (University of Cambridge), Dan Goodman (Imperial College London) and Leslie Smith (SIG leader, University of Stirling, [i.s.smith@cs.stir.ac.uk](mailto:i.s.smith@cs.stir.ac.uk)). The first kick off meeting of this SIG will be held in December at Cambridge University. This SIG will appear on our website shortly. Meanwhile, anyone who wishes to join this SIG contact Prof. Smith directly.



There is a new student competition held by Audio Engineering Society (AES). Details of this competition [are here](#). This competition is supported

by Mathworks who provide software resources (above picture), tutorials and MATLAB Student licenses for the competition available through their website [from here](#). The aim of this competition is to help students to show off their audio signal processing skills by encouraging them to enter the MATLAB Plugin AES Student Competition. The students will need to create a new type of VST plugin using only MATLAB code, share it on MATLAB Central, and document their project with a short YouTube video. Submissions are due to the Audio Engineering Society by August 15, 2019 for a chance to win up to \$1000 USD.

at Knight Stainforth Hall in the Yorkshire Dales National Park. The idea is to demonstrate to the general public how successful varying re-wilding initiatives have led through to the incorporation of measures for ecological and soundscape richness which also include acoustical measures. The team installed camera traps combined with bat acoustic signal recorders (see picture above). This Project is connected with [MammalWeb team](#), who are analysing the images that are captured on camera traps. The project also has a [Facebook Group page](#) and it would be great to accept interested members of UKAN to this social media site. Just drop the project title into the Facebook search, identify yourself and request to join.



Three months ago, the Ingleborough Soundscape Project was launched at a UKAN sponsored event held

We would like to remind our members that next year is the International Year of Sound (IYS 2020, <https://sound2020.org/>). We encourage our members to ensure that any UKAN events they are planning for 2020 are also listed on the IYS website <https://sound2020.org/event/>. We also encourage event leads to open these UKAN events to the general public and make relevant parts of these events understandable to the general public. Telling the story of 'what acoustics has done for us' is an essential part of this process communicating increasingly diverse applications of acoustics. Please get in touch with us by emailing to [info@acoustics.ac.uk](mailto:info@acoustics.ac.uk) if you have: (i) any connections or colleagues specialising in outreach/public engagement; (ii) equipment that could become part of the demonstrator kit; (iii) ideas for new kit for UKAN to build, to extending the range of that kit, especially for a permanent exhibit in [Winchesters Science Parks' Hands on Exhibition Space or Innovation Studio](#); (iv) if you are aware of short films that exist already that

showcase acoustics; or (v) if you simply wish to become involved and support outreach.

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There are three forthcoming UKAN events this summer: (i) [Acoustic Metamaterials Summer School on July 1-5 July, La Vieille Perrotine, France](#); (ii) [Soundscape/Noise SIG workshop to develop white/position paper on 24 July, London](#); (iii) [Machine Learning for Acoustics Summer School \(UKANSS19\), 5-9 August, Wales](#) event is fully subscribed, but there is a waiting list.

Also, there are two major acoustic conferences before the end of 2019: (i) [International Congress on Acoustics](#), 9–13 September, Aachen, Germany; (ii) [Fall 2019 Acoustical Society Meeting of America](#), 2–6 December, San Diego, USA. Funding to attend these meetings is available provided the purpose of your visit falls within the objectives of the UKAN ([see the case for support](#)). Fill in the online [UKAN Travel Grant](#) application form if you would like to apply. We also encourage our members to use the UKAN travel funding for short research visits to acoustic research centres through the UK and overseas. Get in touch with the UKAN management team for more information.

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Finally, at our last meeting with the EPSRC in May we were asked whether or not the UKAN website has a live depository for data and software. This was a fair question because all the EPSRC funded work should comply with their [policy framework on research data](#). This policy suggests that publicly funded research data should generally be made as widely and freely available in a timely and responsible manner. In this respect it seems fair to suggest that the UKAN website is a good focal point for sharing data, software and publications. We would like our members to express their views on whether or not they would be happy to share the results of their work through our website.

Yours sincerely,

Kirill Horoshenkov and Richard Craster

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