

The UK Acoustics Network Newsletter January 2021

Dear UKAN Members

Happy New Year to you all. 2021 is an International Year of Sound. It is also the year of UKAN+ which will start on the 1st of April 2021 to take our UKAN community to a different level. UKAN+ has funding to support research and knowledge transfer activities which will run alongside our networking, outreach and public engagement events. We are working to set up a process for funding calls and project awards. We will finalise this process before the end of March.

Events

4th of February - [COMSOL Version 5.6 Day](#).

8th of February - <https://acoustics.ac.uk/events/ioa-early-careers-group-webinar-further-education-in-the-time-of-a-pandemic/>

10th of February - [New relationships between geophysical and acoustic parameters](#) by Nicholas Chotiros

1-5th of March - [Software Carpentry Workshop for the UK Acoustics Network](#).

10th of March - [Low cost, low power acoustic communication and sensing: Enabling the Internet of Underwater Things](#) by Jeff Neasham.

Members need to register for these events for IT security purposes.

It would be good if our members could volunteer to present their work or to suggest suitable webinar topics by writing to info@acoustics.ac.uk. Ideally, we would like to run weekly webinars presenting on topics that are likely to be of interest many of our 1000+ members.

We would like to ask the organisers/hosts of UKAN webinars to be vigilant and not to admit any unregistered participants. There have been incidents when a webinar being hacked and inappropriate material presented to the audience.

We would also like to encourage the organisers to record their webinars and to get in touch with us on info@acoustics.ac.uk to arrange uploading these webinar videos and slides on UKAN Google Drive folder [here](#). This folder contains past webinar recordings available to all UKAN members.

VA SIG Masterclasses

Three zoom recordings of our Vibro-Acoustics SIG UKAN Masterclasses are now available to view [here](#).

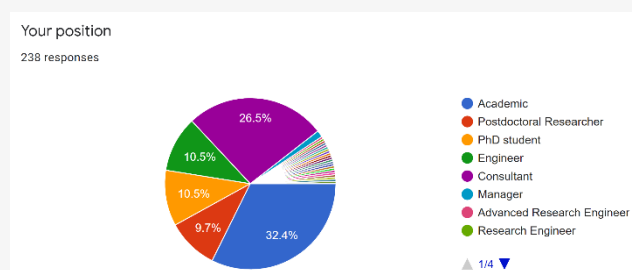


These webinars, on vibro-acoustic measurement and calculation, were originally planned as in-house seminars combined with hands-on laboratory demonstrations. Figure above is a measurement set-up for the structural dynamics of an air pump. The course provides the scientific understanding of the transmission of vibration power from operating machines into supporting structures and the resultant radiated sound. For the prediction of transmitted power, laboratory measurements of the vibration activity of the source are required. In addition, either measurements or calculations of the structural dynamics at the contact between source and receiver are required. The source activity can be measured as free velocity or blocked force and both are considered. The structural dynamics are measured as mobility (ratio of response velocity to applied force) or calculated in terms of simple expressions obtained

from lumped system behaviour and infinite beam and plate behaviour. The laboratory demonstrations are of installation conditions in buildings, but other structural systems are considered. The course ends with examples of practical problems and applications, and questions from the original audience are addressed throughout the course.

Institute of Acoustics membership survey

We would like to thank all those who took part in this survey. The results of this survey can be found [here](#).



The survey suggests that our academic vs non-academic membership is approximately 50:50. It also shows that over 50% of our members are also members of the Institute of Acoustics (IOA) and that over 30% of our members are early career members. These data have been shared with the IOA who are in the process of reviewing their membership structure to make IOA membership more attractive to researchers or people interested in acoustics related research. These data are also important for planning the future of the UKAN after the end of the EPSRC UKAN+ grant in March 2025 and for setting up the National Centre for Coordination of Acoustics Related Research potentially under the umbrella of the IOA.

Podcasting acoustics

We encourage our members to become involved in podcasting to promote their research and to support the International Year of Sound. Two podcast episodes "[The Rest is Just Noise](#)" have already been put together by a group of soundscape researchers and supported by the UKAN. You can follow the Twitter channel [here](#). Another episode by Dr. Sarah Payne "[Up and down the soundscape scales](#)" will be released on February, the 2nd. The hosts are currently

approaching other guests for the next episodes. Do you have some interesting topics about sound and cities to propose? To suggest a future guest speaker or to volunteer yourself please contact Francesco Aletta (f.aletta@ucl.ac.uk).

If you are new to Podcasting you might find [this info](#) helpful. Why not 'dive-off-that-high-board' and record more podcasts in 2021? UKAN is keen to increase the amount of information about acoustics available to the general public. For examples see *Talking Acoustics* pages [here](#). If you have already made a podcast please share it via Info@acoustics.ac.uk or Twitter as we would love to feature it on UKAN's website.

[Futurelearn](#) have a free online course on podcasting that you can add to your wishlist and they will email you an invitation.

New grants related to acoustics

UKAN would like to congratulate Drs. Lorenzo Picinali Dan Goodman (Imperial College) and his colleagues on winning an EU grant to work on the project called "SONICOM - Transforming auditory-based social interaction and communication in AR/VR". This work has been funded within the FET-Proact Horizon 2020 scheme. It is a 5-year project worth €5.6m focussing on research in immersive audio using artificial intelligence and exploring not only the sensory aspects of 3D audio perception but also the implications on social interactions within AR and VR, therefore entering the cognitive realm. More information can be found in the project temporary website (<https://www.sonicom.eu/>), where soon they will post adverts for research positions. The project involves several other UK and EU academic partners and three SMEs.

We would also like to congratulate Professors Professors Zoe Pikramenou (University of Birmingham) and Panagiota Angeli (UCL) on winning a new £900k EPSRC Grant [UltraSOuNd-controlled drug release from Antimicrobial particles for denTAI tissues \(SONATA\)](#).

Stay well

Kirill Horoshenkov and Richard Craster