

# It's a proud 50 not out for Instrumentation Corner as it looks to complete the ton

By John Shelton

It doesn't seem possible that this is the 50th Instrumentation Corner article for the Bulletin. Over the years, the Measurement and Instrumentation Committee has covered many subject areas in the field, to help practitioners to improve the quality of their noise and vibration measurements, and to inform on latest instrumentation trends and standards.

The original founding committee, ably chaired by Richard Tyler, consisted of the great and sometimes good in the instrumentation field, including manufacturers, laboratories and standards bodies. That mix continues to this day, providing an excellent source of advice and comments on all things related to measurement.

Although measurement and instrumentation covers all fields in acoustics, which means there's always a danger of overlap with other specialist groups, we strive to highlight areas where there is sometimes bad practice, or a lack of current thinking in outdated standards.

The first IC article appeared in January 2009, with Martin Armstrong setting the scene. Martin is our resident vibration expert and he has since contributed on subjects such as human vibration (he sits on the ISO8041 committee), measurement uncertainty, and "serious" vibration measurements. He recently updated us all on the newly published ISO8041-1 for human vibration instrumentation.

An early member of the committee, Ken Brown, also expanded on the subject by covering what was then the newly released BS 6472.

Richard Tyler has always had a bee in his bonnet about calibration, and his first article looked at the common problem of mixing and matching sound level meters and calibrators, a practice that I'm afraid I still see in the field. Richard has also contributed on standards updates and measurement uncertainty.

Ian Campbell has a wealth of knowledge and experience in sound level meter development, and he has covered aspects of high and low-level measurements, evaluation of sound level meter limits using dummy microphones, and extremes of high and low frequency measurements.

With a similar background, Daren Wallis has written on subjects including the effects of weather on windscreens, electret microphones, and routine verification of sound level meters.

Sue Dowson is our resident standards expert (as well as committee secretary), and has kept us abreast of developments in new standards, and activities on standards committees, on several of which she is a member. Since 2009 we have of course seen the update of the sound level meter standards to BS EN 61672, and Sue has written a clear guide to the changes.

Liz Brueck has a deep knowledge of all things Health & Safety, and in her time at HSL Buxton, she has provided some stimulating articles on the effect of jumping up and down on dosimeter measurements, measuring impulsive noise and Control of Noise at Work regulations.

Simon Bull is another sound level meter buff, and has a tendency to find some esoteric issues, one of his titles being "What you can get away with for 90% of the time"! Simon also has had some interesting views of tool timers for vibration assessment, and as far back as 2010, he was describing developments in web-based noise monitoring.

For my sins, I have banged on about subjects that have exercised me at the time, such as Ln's in 1/3 octaves, internet noise monitoring, geophones & accelerometers, and an historical overview of sound level meter developments.

Our contributors from the ANC, including Steve Cawser, have provided some clear practical advice on digital acquisition and vibration measurements, and our more recent members

such as Mark Dowie, Tony Higgins, Ben Piper and Giles Parker have covered areas as diverse as BS 4142, noise barriers, noise & planning, and ultrasound.

We recently reviewed all the IC articles, and converted as many as we could to PDF for posting on the IOA website. You can now find them by logging into your member's area, and go to the committees, groups and branches page, where you will find a link to the M&I committee. All the articles we could find are listed there, and we hope this will provide you with a useful resource.

Measurement and instrumentation never stands still, so we will continue to publish Instrumentation Corner, with both review and update articles. If you think there is a burning issue that needs to be addressed, please let us know, as the subject matter can tend to reflect what we think is important within the committee. We are there to help members improve their measurement practices and inform on new developments.

Finally, I'd like to thank all our contributors, past and present, as the articles do take some time to research and write, and we hope to continue with our M&I theme of weird and wonderful titles (Ian Campbell wins that prize with "Are old timers past their peaks (Lcpk that is)?")

*John Shelton is Chairman of the Measurement and Instrumentation Committee.*



Vol34 No3: Ian Campbell.  
Let's get down and dirty: the measurement of low sound levels

Vol37 No4: John Shelton.  
Accelerometers, geophones and seismometers – which to choose?



Vol40 No5: Mark Dowie.  
BS 4142:2014 Measurement planning and practice