

## **A practical workshop on the use of ultrasonic hydrophones**

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This is a very “hands-on” opportunity to learn about the use of hydrophones and hydrophone positioning systems to characterise ultrasonic fields and is loosely based upon the IPEM accredited “Hydrophone Users Course” run by Precision Acoustics Ltd. Every candidate will be involved with making measurements both individually and as part of a group during the course.

Topics will include:

- Hydrophone properties – sensitivity, directivity, spatial averaging, frequency response, noise, transduction method and how these factors affect our choice of hydrophone
- Transducer field properties – focussed vs non-focussed, impulse vs CW, diagnostic vs therapeutic
- Artefact correction – how to recognise when things aren’t right and how to either minimise, or correct for, non-ideal behaviour
- Regulatory parameters – ultrasonic output declarations and the standards that underpin them
- Automated measurement – data acquisition, triggering, scanned hydrophone measurements, safety precautions

There will also be the opportunity for candidates to identify areas of particular interest to their own research and where possible these interests will be included within the course.