



NSW DIVISION TECHNICAL MEETING

ENGINEERING NOISE CONTROL: THE DESIGN AND APPLICATION OF MUFFLERS

Date: Thursday 10th August 2017

Venue: The Australian Hearing Hub, Macquarie University,
North Ryde
16 University Avenue (See Map at:
<http://hearinghub.edu.au/contact-us/>)

On arrival, take the lift to Level 4 and follow the signs
Parking is available underneath the building on Level B2 (lower level)

Time: 6:00 pm for 6:30 pm start
Refreshments prior to talk

Speaker: Dr Ray Kirby, Centre for Audio, Acoustics and Vibration
(CAAV), UTS

RSVP: Thursday 3rd August 2017 to Mattia Tabacchi by email
Mattia.tabacchi@renzotonin.com.au
AAS members (and guest) are welcome to attend.



Mufflers are widely used to attenuate noise emitted by machines and power generating equipment. This talk will review the basic design principles of reactive and dissipative mufflers, and show how these may be combined to deliver sound attenuation over a wide frequency range. Many different applications will be discussed, ranging from traditional automotive applications to those found on large power generating equipment such as gas turbines. The importance of modern computational techniques will then be reviewed and design challenges for the future discussed, such as treating mufflers as part of an entire system in order to predict radiated noise levels for environmental noise calculations.

Ray Kirby joined the Centre for Audio, Acoustics and Vibration (CAAV) at the University of Technology Sydney as an Associate Professor in March 2017. He moved to UTS from Brunel University London, where he worked for the previous 18 years. RK did his PhD and Post Doctoral work in the acoustic design of dissipative mufflers at Hull and Loughborough Universities in the UK, before moving to take up an academic position at Brunel. His main research interests lie in the computational modelling of guided waves, with applications in noise control and non-destructive testing, and he has 25 years' experience in muffler design. He has published 35 journal articles in the area of acoustics and vibration, as well as over 40 conference articles and has one international patent relating to mufflers.