



➤ **March 2017**

---

## **Tēnā koutou katoa, and welcome to our very first edition of elaborate**

The Measurement Standards Laboratory of New Zealand is on a mission to raise awareness of the value of good measurement across industry and help our customers use measurement to be more commercially successful. In 2017 you will see a number of initiatives designed to raise our profile, improve our services and communicate with industry the value in better measurement processes. This is our role as a National Metrology Institute and is for the benefit of all our end users. Enjoy the following articles and please share with any others who could benefit from this.

Nga mihi  
Fleur Francois  
Director, MSL

---

## **New Look for MSL**

So we have a new look. We are rolling out new branding that we hope you find is authoritative, modern and engaging. We wanted to create a distinctive visual identity that represents our role as the official measurement standards body that underpins regulatory compliance and international trade for New Zealand businesses, and that also supports the national measurement infrastructure (that is you). The new branding has been rolled out across all our collateral and website. We have also obtained a new website address and new contact email addresses.

[www.measurement.govt.nz](http://www.measurement.govt.nz) or email us on [info@measurement.govt.nz](mailto:info@measurement.govt.nz)

All our staff emails have now been moved to the new domain and redirections are in place if you use the old addresses.

---



# MSA Conference 2017

MSL is a strong supporter of the Metrology Society of Australasia (MSA), as this diverse network is a perfect forum to share ideas, get involved in metrology related events and meet likeminded experts and provides a huge benefit to your organisation. 2017 is a conference year, following the successful event held in Queenstown in 2015. This September the MSA conference is being held in Brisbane at the Brisbane Convention Centre. We'd love to see a strong presence from NZ, and to that extent the registration cost has been kept very low. Many attendees from Queenstown 2015 rated the training opportunities very highly. Therefore, the programme for 2017 will be as much training, workshops and case studies as scientific. Early Bird Registrations are open now.

More info is on the [MSA website](#) as is the [Call for Papers](#).



## 2017 Training Courses – Registrations Open

We are pleased to announce registrations are now open for our 2017 Measurement Training Courses being held in August in both Auckland and Lower Hutt. Please use these IANZ approved courses to upskill your staff. See the course summaries and schedule on our website, and use the online registration form.

If you have specific training requirements outside of these courses, please contact us and we'll endeavour to tailor a solution to fit your needs.

[➤ READ MORE](#)



## World Metrology Day

The NZ MSA committee are hosting a World Metrology Day celebration/training day in Auckland on Tuesday 23rd May, open to all members and non-members, but there will be a cap on registrations for this event. The theme is Measurement for Transport, so the programme is being designed around that, consisting of guest speakers, a talk about how to interpret and make use of calibration certificates and a top secret site visit. If you are interested in learning more please email [Cynthia Lendrum](mailto:Cynthia.Lendrum) for a copy of the programme when it becomes available. Registrations will be on a first in first served basis.

[➤ READ MORE](#)



## Rapidly Changing Measurement

Fleur Francois recently spent time filming a video with Unfiltered explaining the benefits of good measurement. Metrology can be very misunderstood, so this short video is a great starter for those businesses who may not realise they have a measurement problem and prompt them to contact us. Click Find out more to view the video.

[➤ Find out more](#)



## Introducing Emile Webster

My role within MSL is to provide research into thermocouple stability and measurement techniques. This work is part of contact thermometry, an area within temperature standards. Historically, Temperature Standards (MSL) had no thermocouple calibration capability, which was a problem as most industrial temperature measurements are made with thermocouples. In my first two years at MSL I was involved with the design of a new suite of equipment that surpassed anything that had been built before. The new systems and equipment revealed previously unknown effects in thermocouple alloys, uncovering a hidden world of temperature induced structure changes. It was clear no immediate thermocouple calibration service could be offered by MSL until these problems could be quantified and methods developed to either eliminate or mitigate them.

Over the past three years, a dozen papers have been written describing the thermocouple research undertaken at MSL. Several of these publications were collaborative projects involving world experts from Australia, Germany and the UK. Only within the last year is MSL getting close to offering a thermocouple calibration service, which will utilise many of the discoveries that have been made here.

My other responsibility at MSL is to become an assessor, aiding laboratories and industries in defining their measurement needs and capabilities. The measurement systems in an industrial environment can be vastly different to those in the laboratory and as such the assessor requires not only scientific expertise, but industry know-how and engineering skills. As a precursor to becoming an assessor I have become more involved in the MSL temperature training courses and frequently present to visitors and open days. These events provide a useful interface where second-tier laboratories and industry staff can communicate their measurement problems and get first-hand feedback on issues that impact their calibrations.

 [READ MORE](#)


## Packaging and Sending Instruments

If you're from a testing/calibration lab then your instruments are integral to your business. They are also very costly to procure and maintain, therefore it makes sense that every care should be taken when sending your instrument by courier. We suggest the more packaging material used, the better. So wrap everything in sponge foam or bubblewrap to a minimum thickness of 25 mm to 50 mm in every direction. Wrapped items should then be packed into a cardboard box, to protect against crushing, bending or impacts, with more packing used to prevent shifting while in transit. If you require more advice about a specific instrument please contact us – [info@measurement.govt.nz](mailto:info@measurement.govt.nz)



## Our Latest Technical Guides

Keep up to speed with our latest Technical Guides that provide assistance with measurement techniques for specific applications. Our latest guides have been published for Emissivity of Blackbody Cavities (Technical Guide 35) and Calculating Deadweight Tester Pressures (Technical Guide 36). Click Read More for all MSL Technical Guides.

 [READ MORE](#)

Tell us what sort of information you would like to receive in future updates from us by emailing [info@measurement.govt.nz](mailto:info@measurement.govt.nz)



[www.measurement.govt.nz](http://www.measurement.govt.nz)



[info@measurement.govt.nz](mailto:info@measurement.govt.nz)

Copyright © Measurement Standards Laboratory of New Zealand, 2017

A business of  
**CallaghanInnovation**