



# Jayasree Reva Phoenix Metrology Pvt. Ltd.

Calibration | Inspection | Testing | Training | Services

ISO 9001:2015 Certified | ISO/IEC 17025:2017 Accredited



## Acoustics Metrology | Training Brochure

### INTRODUCTION

Our Acoustics metrology offers calibration of sound level meters with high precision masters to obtain better measurement results. A sound level meter (SLM) or sound meter is an electronic instrument to assess noise or sound levels produced by workplace machinery, alarm systems, speakers, and more by measuring sound intensity. It is often known as a sound pressure level meter (SPL), decibel meter (dB meter), noise level meter (noise meter), or noise dosimeter.

## COURSE FEATURES

Training course covers the following contents:

- Practical & Theoretical Training of Acoustics Calibration
- Specific Criteria & Guidelines Acoustics Calibration
- Estimation and Expression of Uncertainty in Measurement as per NABL 141
- Calibration and Measurement Capability (CMC) and Measurement Uncertainty in Calibration as per NABL 143
- Participation in Proficiency Testing Activities as per NABL 163
- Guidelines for Interlaboratory Comparison as per NABL 164



## TRAINING MATERIAL

Material in soft for Acoustics metrology as per ISO/IEC 17025: 2017, NABL oriented best-in-class training material traceable to National and International Standard requirements.



## PRINCIPLE | THEORY

A sound level meter is a basic noise measuring instrument, which is an electronic instrument. But it is different from objective electronic instruments such as voltmeters. When converting an acoustic signal into an electrical signal, it can simulate the time characteristic of the human ear's response speed to the sound wave; the frequency characteristic with different sensitivity to high and low frequencies and the intensity characteristic of changing the frequency characteristic at different loudness. A sound level meter is a subjective electronic instrument.



## CALIBRATION RANGE

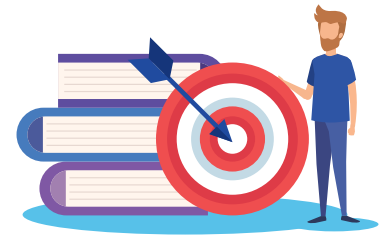
- Sound Level Meter (94 dB & 114 dB @ 1kHz)

## EXPECTED PARTICIPANTS

- Laboratory Managers
- Calibration and Testing Engineers
- Laboratory Engineers
- Quality Managers
- Metrology Professionals
- NABL Lab Engineers



# OBJECTIVES OF ACOUSTICS WORKSHOP



- Basic knowledge of calibration such as requirements of calibration, why do we need calibration, equipment selection, types of equipments, metrological traceability, selection of calibration agency etc.
- Understand requirement of ISO/IEC 17025:2017 requirements for measurement uncertainty.
- Understand theory of uncertainty of measurement, selection of uncertainty measurement factors, and calculation of measurement uncertainty.
- Understand the relevance of instrument measurement, including the use of instrument.
- Understand technical requirements and calibration method for relevant instruments.
- Preparation of calibration certificates and work sheet.

## COURSE CONTENT

Course content covers the following topics:

- Comprehensive Trainer's Guide
- Power Point Presentation: Acoustics Metrology
- Introduction to Measurements, Fundamental & Derived Units
- Standards Organizations and Document Standards
- Calibration Procedures | Methods | Processes
- Practical example from the trainer selecting the best solution
- Documentation Training as per ISO/IEC 17025: 2017
- Measurement Uncertainty
- Questions & Answers
- Practical examples from your business ( In-house courses only)
- Summary & Review



# WORKSHOP METHODOLOGY



## TRAINING SESSION

Theoretical training on the basics of the subject.

- Acoustics Laboratory



## WORKSHOP & TEAM EXERCISES

Case studies from relevant industry samples taken up in line with the guidelines and formats.

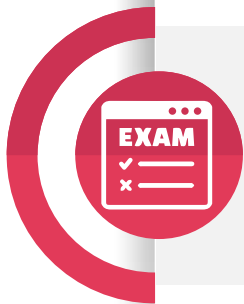
- Acoustics Laboratory



## GRADED EXERCISE

Graded exercises to evaluate individual participant's progress during the course.

- Acoustics Laboratory



## FINAL EXAMS

Business as usual, we have a final examination to evaluate and certify the participants.



## CONTINUING SUPPORT

We provide continuing support to new projects and provide project assistance based on client requirements.

## CERTIFICATION

- Certificate of course completion to successful participants.
- Attendance for the entire duration of the course is compulsory.



## Jayasree Reva Phoenix Metrology Pvt. Ltd.

Calibration | Inspection | Testing | Training | Services

ISO 9001:2015 Certified | ISO/IEC 17025:2017 Accredited



Dimensional | Pressure | Torque | Force | Hardness | Impact | Mass | Volume |  
Electro-Technical | Thermal | Acoustics | Acceleration & Speed | Fluid Flow | Optical |  
UTM | TTM | Tachometer | Anemometer | Durometer | Lux Meter | Push Pull Gauge |  
Rockwell | Brinell | Vickers | Micro Vickers | Mechanical Testing | Impact Testing :  
Mechanical Properties of Metals and Non-Metals



## CONTACT US

### Head Office / Laboratory

Reva Phoenix Complex, No. 14, 4th Street, Raja Rajeswari Nagar, Madipakkam, Chennai – 600 091, Tamilnadu, India.



+91 98406 72352



enquiry@revaphoenix.com



www.revacalibration.com