

ACOUSTICS AND VIBRATION LABORATORY

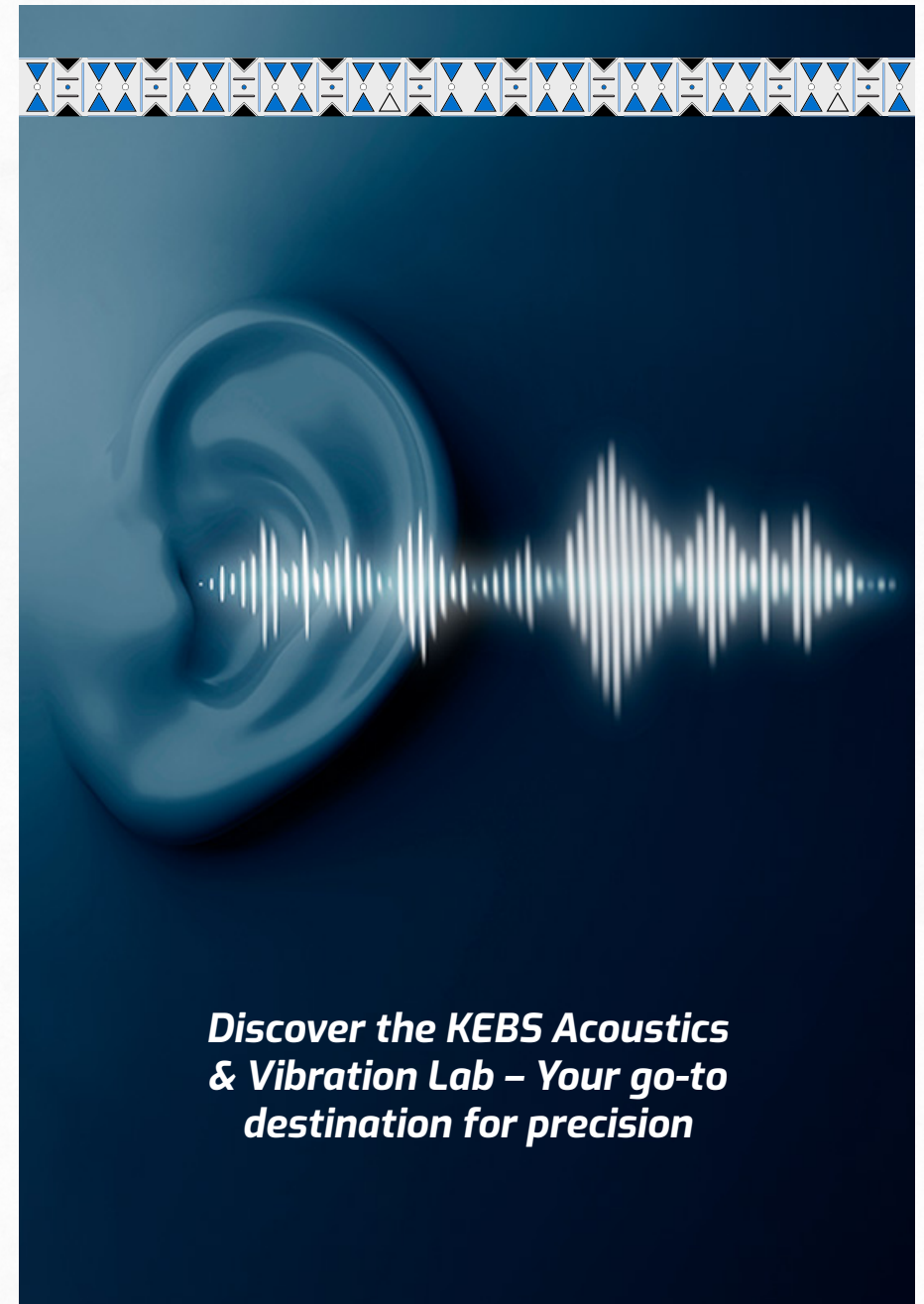
Introduction

KEBS Acoustics and Vibration Laboratory is the national custodian for the units of Acoustics and Vibration.

The laboratory offers traceability nationwide through calibrations to its reference standards. The laboratory operates under ISO/IEC 17025 – General requirements for testing and calibration laboratories, and uses standard calibration methods by IEC and ISO.

A pool of qualified scientists carry out calibration work and also undertake training within the sound and vibration measurement scope.

The laboratory maintains Calibration and Measurement Capabilities (CMCs) in the [Key Comparison Database \(KCDB\)](#) of the International Bureau of Weights and Measures (BIPM) under the area of Acoustics, Ultrasound and Vibration (AUV).



***Discover the KEBS Acoustics
& Vibration Lab – Your go-to
destination for precision***



KEBS Calibration Services Offered (Acoustics and Vibration)

Measured quantity / Calibration item	Range	Measurement conditions / Procedure	Uncertainty of measurement
Measurement microphones Pressure sensitivity of microphone type LS2P	10 Hz to 16 kHz	IEC 61094-2:2009	0.04 dB to 0.07 dB
Sound calibrators Sound pressure level of a sound calibrator (multi-frequency)	31.5 Hz to 16 kHz	IEC 60942:2017	0.07 dB to 0.18 dB
Sound level meters Sound pressure response level of sound measuring instruments	31.5 Hz to 16 kHz	IEC 61672:2013	0.2 dB to 1dB
Vibration meters Frequency response (modulus) of an acceleration measuring instrument	10 Hz to 10 kHz	ISO 16063-21:2003	1.0 % to 2.2 %
Vibration accelerometers (Charge type) Charge sensitivity (modulus) of an accelerometer	10 Hz to 10 kHz	ISO 16063-21:2003	1.0 % to 2.2 %
Vibration accelerometers (Voltage type) Voltage sensitivity (modulus) of an acceleration measuring chain	10 Hz to 10 kHz	ISO 16063-21:2003	1.0 % to 2.2 %
Environmental vibration monitors and seismometers Voltage sensitivity (modulus) of an acceleration measuring chain (Low frequency environmental sensors)	1 Hz to 10 Hz	ISO 16063-21:2003	3.0 %
Audiometers (Headphones) Air-conduction response level: Frequency	125 Hz to 8 kHz	ISO 389-1:2017	3.0 dB
Audiometers (Bone conductors) Bone-conduction response level: Frequency	250 Hz to 2 kHz	ISO 389-3:2016	3.0 dB

Contact

Head of Acoustics and
Vibrations Laboratory
KEBS HQ, Popo Road, off
Mombasa Road, Nairobi. Email:
info.metrology@kebs.org