# Sound & Vibration Measurement Seminar

April 04-08, 2022

Deerfield Beach, FL

This Seminar is Designed for:

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- Individuals interested in pursuing NEBB certification in sound and/or vibration measurement.
- Professionals from other disciplines who want to expand their knowledge of sound and vibration as it relates to their business.
- Firms interested in learning more about sound and vibration.
- Engineers and architects interested in expanding their knowledge of sound and vibration.

# **Location:**

#### **Total Dynamic Balance**

1531 Northwest Third St Suite 13

Deerfield Beach, FL 33442

Registration Deadline:

March 04, 2022





#### **Our COVID-19 Response Plan**

Considering of COVID-19, NEBB has taken several proactive steps to help ensure the health and safety of our attendees and instructors. Precautions such as constant sanitization of the seminar area, increased attention to high-touch areas in the rooms, limits on the number of attendees during the seminar and protective gear for our Instructors and are in place. NEBB also will be practicing social distancing and maintaining 6 feet apart.

#### Responsibilities for Each Attendee:

- If you are experiencing any symptoms of COVID-19 like running a fever, coughing or shortness of breath, please do not attend the seminar.
- You have been exposed to someone who has tested positive for COVID-19 in the last 14 days.
- You have a compromised immune system or are considered "high risk."
- Masks are required during the seminar and gloves can be worn if desired.
- Sanitize hands prior to entering seminar location.
- Avoid shaking hands or engaging in any unnecessary physical contact.
- Signing a waiver prior to the seminar.





# **Seminar Instructors:**



#### **Stuart McGregor**

### Engineering Dynamics, Inc., Englewood, CO

Stuart McGregor, PE, is senior acoustical engineer at Engineering Dynamics, Inc. He has 30 years of experience as an acoustical engineer and vibration analyst, for environmental and building projects. He is a member of NEBB's Sound and Vibration (S&V) Committee, NEBB Certified Professional (S&V) and ANSI CAT III Vibration Analyst certified (via the Vibration Institute). Stuart is active in the Rocky Mountain NEBB chapter and has been a coinstructor for NEBB CP and CT sound and vibration training seminars.



#### **Chad Matthews**

#### Air Technologies Inc., Austin, TX

Chad Matthews in a Principal at Air Technologies, Inc. in Austin, Texas. Mr. Matthews is a NEBB Qualified Professional in the areas of Testing, Adjusting, and Balancing, Sound Measurement, and Vibration Measurement. He currently works primarily in the area of initial project estimation. He has been performing Testing, Adjusting, and Balancing and Sound and Vibration Measurement for approximately 25 years. Mr. Matthews serves as a member of the NEBB National Committee for Sound and Vibration Measurement.





# **About This Seminar:**

NEBB's Sound and Vibration Seminar is designed to prepare professionals from all disciplines in the correct methods to properly perform consistent, repeatable readings to meet sound and/or vibration specifications for projects.

Sound and vibration measurement are a valuable service for building owners who strive to maintain quality environment and minimize maintenance costs. Sound and vibration measurement have been shown to provide tangible cost savings.

- Sound measurement and analysis plays an important role in providing acceptable space usage for various commercial, manufacturing, and industrial activities.
- Vibration measurement and analysis is a proven predictive maintenance activity that helps minimize repair and downtime costs for rotating machinery.

#### **Learning Objectives**

- Learn how to satisfy specification and customer requirements and know how to perform accurate repeatable sound and vibration measurements.
- Learn basic troubleshooting and diagnostic knowledge.





#### Monday, April 04, 2022

(6.5 CECs)

7:30 am: Registration

8:00 am – 4:30 pm: Physics of Sound, Practice making sound level measurements, Practice Problems.

(Lunch Provided)

### Tuesday, April 05, 2022

(6.5 CECs)

**8:00 am – 4:30 pm:** Review, Sound level Instrumentation, Calibration of Sound Level Instrumentation, Sound Level Measurement, Analysis of Sound Measurement, NEBB Documentation Procedures, Practice Problems, Practice making sound level measurements, Practice Plotting NC and RC Charts.

(Lunch Provided)

### Wednesday, April 06, 2022

(3.5 CECs)

8:00 am - 12:00 pm: Sound Optional Written & Practical Exam

**12:30 pm – 4:30 pm:** Vibration Fundamentals, Acceleration, Velocity, Displacement, Simple Harmonic Motion, Single Degree of Freedom Systems, Relationship between Acceleration and Velocity, Displacement Phase.

# Thursday, April 07, 2022

(6.5 CECs)

**8:00** am – **4:30** pm: Vibration Unit Conversions Calculations, Vibration Instrumentation, Overall vibration level meters, Spectrum Analyzers, Frequency Range, Bandwidth, Lines of Resolution, Frequency Resolution, Windowing, Transducer Sensitivity, Accelerometer, Velocity Transducers and Displacement Sensors.

(Lunch Provided)

# Friday, April 08, 2022

(3.5 CECs)

8:00 am - 12:00 pm: Vibration Fundamentals

12:30 pm - 4:30 pm: Vibration Optional Written & Practical Exam



# **Travel Information:**

We recommend all attendees that are unfamiliar with the seminar location or require travel from another location review the following information prior to registering for this seminar.

#### **Hotels:**

Attendees can reservations directly with the hotel of their choice. Below is a short list of hotels in close proximity to the training center. Hotel and transportation costs are not covered by the seminar registration fee.

Fairfield Inn & Suites by Marriott Deerfield Beach Boca Raton 301 Hillsboro Technology Dr Deerfield Beach, FL 954.671.5300

**Quality Suites** 100 Fairway Dr Deerfield Beach, FL 954.427.7700

# **Airport:**

**Fort Lauderdale-Hollywood International Airport (FLL):** 22 miles from facility, 40 minutes average drive time

Arrival in Deerfield beach, FL Sunday, April 03, 2022

**SV Seminar Dates:** Monday-Friday, April 04-08, 2022

**Optional Sound Exam**Wednesday, April 06, 2022

**Optional Vibration Exam:** Friday, April 08, 2022

**Seminar Location:** 

Total Dynamic Balance
1531 Northwest Third St
Suite 13
Deerfield Beach, FL 33442



#### Registration form and payment must reach the NEBB office on or before March 04, 2022.

Pre-registration and payment of fees are necessary to ensure your participation in the seminar.

Three ways to register:

- 1. Online through the Certelligence Portal
- 2. Email this form to <a href="mailto:training@nebb.org">training@nebb.org</a>, or
- 3. Mail this form to: NEBB, 8575 Grovemont Circle, Gaithersburg, MD 20877.

Name:	
Company:	Date:
Address:	
City, State, Zip:	
Phone/Cell:	
Email:	Fax:
Please list any dietary restrictions:	Chapter:
Seminar Fees (Check all that apply)	
\$800 Sound Measurement Seminar Registration Fee	
\$800 Vibration Measurement Seminar Registration	\$Total Amount Paid
Fee	
Publication Fees	Payment Method
\$95 NEBB/ \$125 Non-NEBB: Procedural Standards for the Measurement of Sound and Vibration	Check enclosed made payable to NEBB
	Visa MasterCard American Express
\$90 NEBB/ \$130 Non-NEBB: Sound and Vibration Design Analysis	Name on Card
	CC Number
\$150 NEBB/ \$200 Non-NEBB: Sound Measurement HSC  (Please indicate preference: hard copy or electronic)	Expiration Date
	Security Code
	Signature

**Cancellation Policy:** Cancellation by registrants, regardless of reason, will be subject to a \$250 service charge to cover NEBB's expenses. A refund of the prepaid registration will be made less the \$250 service charge. No Shows or late cancellations (those who registered for the seminar who do not cancel at least 14 days prior to the seminar and subsequently do not attend the course) will forfeit the entire registration fee unless a replacement can be found. NEBB reserves the right to cancel any seminars having insufficient registrants, in which case, all prepaid registration fees will be refunded in full. Please advise NEBB and your hotel of your cancellation as soon as possible.





# **Recommended Publications:**

To achieve the best learning results, it is highly recommended that attendees **read the following publications BEFORE** attending the seminar:

- Procedural Standards for the Measurement and Assessment of Sound & Vibration
- Sound & Vibration Design and Analysis
- Sound & Vibration Measurement Home Study Course

Instructor assumes that all attendees have a thorough working knowledge of the requirements of these NEBB publications prior to attending the seminar. Publications can be purchased online at <a href="https://www.nebb.org">www.nebb.org</a>.

# **Important Reminders:**

- 1. Registrations will be filled on a "first come-first served" basis. Please note that class sizes are limited due to Covid Social Distancing Protocol.
- 2. Seminar fees include course instruction, lunch, am/pm breaks.
- 3. Seminar fees do not include anything pertaining to certification.
- 4. For information on certification or exams please contact certification@nebb.org.

