# Sound & Vibration Measurement (S&V) Seminar

September 09 - 13, 2024

## **This Seminar Is Designed For:**

- 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.
- $\cdot$  Firms interested in learning more about sound and vibration.
- Engineers and architects interested in expanding their knowledge of sound and vibration.

**Location: Texas NEBB** 206 E. Nakoma San Antonio, TX 78216

Registration Deadline: August 09, 2024



### **Seminar Instructors:**



**Stuart McGregor** 

Stuart McGregor, PE, is a 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 II Vibration Analyst certified (via the Vibration Institute). Stuart is active in the Rocky Mountain NEBB chapter and has been a co-instructor for NEBB CP and CT sound and vibration training seminars.

**Chad Mathews** 

Chad Mathews is a principal at Air Technologies, Inc. in Austin, TX. He has 20 plus years of experience as a TAB CT and is currently a TAB, SM, and VM CP. He is a member of NEBB's Sound and Vibration (S&V) Committee, and NEBB Certified Professional (S&V). He is active in Texas NEBB and has been a co-instructor for NEBB CP and CT sound and vibration training seminars

8575 Grovemont Circle, Gaithersburg, Maryland 20877 Phone: 301.977.3698 | Fax: 301.977.9589 Email: training@nebb.org

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

• Sound measurement and analysis play 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**

 $\cdot$  Learn how to satisfy the specification and customer requirements and know how to perform accurate repeatable sound and vibration measurements.

Learn basic troubleshooting and diagnostic knowledge.

### Monday, September 09, 2024 (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, September 10, 2024 (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, September 11, 2024 (3.5 CECs)

8:00 am - 12:00 pm: Sound Optional Written & Practical Exams 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. (Lunch provided)

## Thursday, September 12, 2024 (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, September 13, 2024 (3.5 CECs)

8:00 am - 12:00 pm: Vibration Fundamentals 7:30 am - 4:30 pm: Vibration Optional Written & Practical Exams (Lunch provided)



## **Travel information:**

Registration form and payment must reach the NEBB office on or before August 09, 2024. Pre-registration and payment of fees are necessary to ensure your participation in the seminar.

#### Hotels:

Attendees can make 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.

**Embassy Suites - San Antonio Airport** 10110 Hwy 281 North San Antonio, TX 78216 210-525-9999

Holiday Inn Express - San Antonio Airport

91 N.E Loop 410 San Antonio, TX 7821 210-308-6700

#### Airport:

#### San Antonio International Airport:

Serves the San Antonio area. Texas NEBB and the hotels listed above are approximately 10 miles from the airport. Taxi services are available at the airport.

#### **Important Dates and Times:**

Arrival in San Antonio, TX Sunday, September 09, 2024

Seminar Dates: Monday - Friday, September 09 - 13, 2024

**Optional Sound Written and Practical Exam** Wednesday, September 11, 2024

**Optional VibrationWritten and Practical Exam** Friday, September 13, 2024

**Seminar Location:** 

**Texas NEBB** 206 E. Nakoma San Antonio, TX 78216



Registration form and payment must reach the NEBB office on or before August 09, 2024.

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

### **Registration form and payment**

- 1. Online through the Certelligence Portal
- 2. Email this form to training@nebb.org, or
- 3. Mail this form to: NEBB, 8575 Grovemont Circle, Gaithersburg, MD 20877.

Name:	Date:
Company:	
Address:	Optional Exam Opportunity:
City, State, Zip:	Please check the box below. If interested, please email <u>certification@nebb.org</u> for the candidacy application process. Pre-approval and payment are required before the deadline.
Phone/Cell:	
Email:	
Please list any dietary restrictions and/or ADA accommodations:	Yes, interested in taking the exam
Seminar Fees (Check all that apply)	No, not interested in taking the exam
\$800 Sound Measurement Seminar Registration Fee (Does not include candidacy application or exam fees)	Payment Method
\$800 Vibration Measurement Seminar Registration Fee (Does not include candidacy application or exam fees)	Check enclosed made payable to NEBB
Publication Fees	🗌 Visa 🗌 MasterCard 🗌 American Express
\$95 NEBB/ \$125 Non-NEBB: Procedural Standards for the Measurement of Sound and Vibration	Name on Card
	CC Number
\$90 NEBB/ \$130 Non-NEBB: Sound and Vibration Design Analysis	Expiration Date Security Code
\$150 NEBB/ \$200 Non-NEBB: Sound Measurement HSC	Signature
	\$Total Amount Due
*Prices for publications do not include shipping and handling	Note: Any candidacy or exam fees will be invoiced separately.

#### Location

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
- $\cdot$  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 <u>www.nebb.org</u>.

#### **Recommended Publications:**

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.



Questions About This Seminar? Call 301-977-3698 or email training@nebb.org

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

Considering 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 are in place. NEBB also will be practicing social distancing and maintaining 6 feet apart.

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

• 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."
- Wearing a mask is requested during the seminar and gloves can be worn if desired.
- Sanitize hands prior to entering the seminar location.
- Avoid shaking hands or engaging in any unnecessary physical contact.
- Signing a waiver prior to the seminar

