

SIGNALYSIS NEWS SEPTEMBER 2019

To deliver the ultimate solution experience to our customers with unsurpassed integrity!

Just as I'm always tweaking my game for that bogey-free round of golf, manufacturers are constantly working toward product quality improvement goals. But, whether its golf or manufacturing, deciding where you want to go is one thing; knowing how to get there is another.

You may know Signalysis for our end-of-production <u>quality inspection test</u> <u>systems</u>. OEMs and suppliers employ these systems to identify defects prior releasing the product to the customer. But did you know that we can help impact quality throughout the product life cycle? From design and validation requirements, through manufacturing or developing a portable test system to identify in-field product defects - we have the experience and expertise to help you reach your quality targets.

l invite you to call or drop me an e-mail to discuss your specific quality challenges and improvement goals.

Neil Coleman President (513) 528-6164 <u>neil.coleman@signalysis.com</u>

Visit our Website

See You at the Show(s)!



Remember, this year's <u>Automotive Testing Expo</u> is right around the corner. And while you're remembering things keep these numbers in mind: 5043. That's the location of the Signalysis exhibit. We would appreciate the opportunity say hello or discuss any quality issues that are keeping you up at night!



Signalysis' Solutions Engineer, Robert Cagle will be presenting a paper: *Frequency Inspection of Brake System Components* at the <u>37th annual Brake</u> <u>Colloquium & Exhibit in Orlando</u>. This presentation will take place on September 24 at 3:40 PM in Coquina Ballroom South.

Can't attend? That's OK, we'll make the paper available for download after the exhibition. Let us know and we'll be sure to send you a link!

Representing Signalysis throughout the Carolinas, Peter Fallon of Foothills Independent Sales, LLC will be attending Southtec and the South Carolina Manufacturing Conference and Expo next month. Contact Peter at 864.633.0828 or sales@foothillsrep.com.

southtec

October 22-24, 2019 Greenville Convention Center Greenville, SC



October 29-30, 2019 Charleston Area Convention Center North Charleston, Charleston, SC

Quality Inspection Testing Seminars

Our one-day seminars provide a basic understanding of sound and vibration principles

along with an understanding of end-of-line quality inspection systems. Sessions also include an introduction to Signalysis quality inspection software, SigQC[™].

2020 Seminars

We're in the process of creating our 2020 seminar schedule. (Check our web site often for details.)

Do you have a location to recommend? We'd love to hear about it. Contact us <u>here</u>.





"Consumers rarely differentiate between the system and its components. Component or sub-system flaws generally create overall negative feelings toward the product as a whole," observes Christopher Kus, Project Engineer and NVH Expert. "A rattling window, unreliable ventilation fan or noisy seat motor will result in a reputation for poor quality for the entire vehicle; not just a particular component or sub-system."

Quality Solutions Close to Home

No matter where you are, Signalysis has you covered. We're partnering with some of the industry's most respected sales organizations to put product quality solutions right in your back yard.

Foothills Independent Sales, LLC

North Carolina, South Carolina Peter Fallon: <u>sales@foothillsrep.com</u>

M6 Revolutions

Idaho, Oregon, Washington, British Columbia Jacob Stock: jstock@m6revolutions.com

North Central Manufacturing Solutions

lowa, Minnesota, Wisconsin, Illinois Steve Lamer: <u>steve.lamer@ncmfgsolutions.com</u>

NVH Testing Technologies

Michigan, Northern Ohio Steve Johnson: <u>Steve.Johnson@nvhtt.com</u>

Vertex Manufacturing Solutions

Indiana Jeff Trotta: j<u>eff@vertexms.us</u>



Implementing Signalysis upstream in the product life cycle saves time and money while boosting quality. The data flow from design validation testing leads to better requirements specifications on prints. This results in accelerating and improving the production quality inspection process. The true value comes when supplier Quality Engineers roll up to OEM and field inspections with confidence and a full complement of data to backup any complaints.

Read More

Case Study: Automotive HVAC Systems



Heating, Ventilation, and Cooling systems are vital to today's driving experience. With customer satisfaction tested with each push of a button, noise, vibration, and failure are not an option.

Challenge

Develop a functional test system that cycles HVAC assemblies through all of their functions to validate quality.

Calling the Experts

The customer, a Tier 1 automotive supplier, called upon Signalysis to develop an automated quality test system capable of evaluating 100% of the manufactured units.

Testing Goals

- Provide inspection for all manufactured HVAC units
- Meet cycle time requirements
- Store data in an SQL database by SN and time/date
- Provide daily production reports
- Serve Data for Statistical Process Control

Results

As a result of implementing the Signalysis IQC Test System, all test requirements were met. As a result the manufacturer could proceed confident that its own rigid quality standards, and lofty expectations of its customers, were not only met; but exceeded.

Read the Case Study



LabVIEW integration has become a significant part of the Signalysis solutions package. We combine control system hardware design with LabVIEW automation software development to provide custom test system solutions. As a National Instruments Alliance Member, we have certified LabVIEW developers on staff.

Read More

White Paper: Vibration Theory

A discussion of vibration theory usually begins with the analysis of a simple mass, spring and damper system. This is because once you analyze the vibration process for this system you can then apply the results to the most complicated vibrating structure. It will be shown later how complex structures vibrate in a superposition of a unique set of different deformation patterns (called mode shapes). Each mode shape has its own resonance frequency and responds to vibratory forces in a manner described by the same differential equations as are used to describe single mass, spring and damper vibration response.

Read the White Paper

life is short. work somewhere awesome.

We're Hiring!

Attention Road Warriors and Installation Technicians... We want you to join our team. If this sounds like you, or someone you know, send your resume to <u>Keith</u> Coomer or contact him at 513.528.6164.

Its (Almost) that time of the Year!

When's the last time you got something in the mail as satisfying as Sonny Marie's baking treats? How about last December!

What's that; you're not on our mailing list? Just drop us a line and we'll take care of that and hook you up with some of the best gluten-free treats this side of the North Pole.



Take it from us... Sonny Marie's gluten-free baked goods are something you won't want to miss out on!





Hooked on Vibration!

Did you happen to have a copy of the September 2017 issue of *Sound & Vibration* magazine handy? If so, flip to page 8 and read how our own "NASA Bob" Coleman got his start to a stellar career and his contributions to the industry. Don't have a copy? That's OK you can read it <u>here</u>.

Remember, nobody knows vibration like Bob Coleman; and we're making copies of his book available to you while they last. Learn more here.

"Experimental Structural Dynamics: An Introduction to Experimental Methods of Characterizing Vibrating Structures"

Request a Copy



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> Contact: <u>Keith Coomer</u> Desk: 513.528.6164 Cell: 513.328.6392