

SAE International 2017 Noise and Vibration Conference and Exhibition Keynote Speakers Announced

SAE 2017 Noise and Vibration Conference and Exhibition today announced its keynote speakers for the June 12-15 event in Grand Rapids, Michigan.

WARRENDALE, Pa. (PRWEB) May 18, 2017 -- SAE 2017 Noise and Vibration Conference and Exhibition today announced its keynote speakers for the June 12-15 event in Grand Rapids, Michigan. On Tuesday, June 13, the event will open with Professor Ahmet Selamet, the Professor of Mechanical and Aerospace Engineering at the Ohio State University discussing "Flow Instabilities: From Turbochargers to Wind Instruments."

Flow instabilities in the breathing system of engines and the resulting noise are discussed in connection with flow separation and surge in turbochargers, and flow-acoustic coupling in induction systems. The impact of incidence angle at the turbocharger compressor inducer plane is illustrated both in terms of boosting and acoustic performance. Variety of time-resolved measurements for internal pressure, velocity, and temperature reveals the character of instabilities and their consequences. These measurements are complemented by videos from selected experimental observations and animations from pertinent computational predictions. The approach of reproducing the specific engine physics of interest on bench top experimental facilities is particularly emphasized in gaining further insight into the fundamental mechanisms leading to noise as well as in developing effective remedies.

Prof. Ahmet Selamet received his Ph.D. in mechanical engineering from University of Michigan in 1989. He joined the Department of Mechanical Engineering of The Ohio State University in 1996, where he was promoted to Professor in 2001. From 2012 to 2016, he also served as the elected Chair of the Department of Mechanical and Aerospace Engineering at The Ohio State University. Selamet's research centers around nonlinear wave dynamics and acoustics, noise control, combustion, fluid mechanics, and heat transfer as applied primarily to internal combustion engines. Over the past three decades, he has conducted extensive analytical, computational, and experimental work to advance the fundamental understanding of wave dynamics and acoustics in engine breathing systems (induction/in-cylinder/exhaust), including the development and validation of pertinent submodels in engine simulations to improve the performance and noise predictions. Selamet recently has focused his attention on turbocharger acoustics and autoignition in combustion chambers. He has disseminated the research findings in more 215 articles in journals/proceedings and co-authored a book on Heat Transfer.

On Wednesday, June 14, Gabriella Cerrato, the Manager of Global Engineering Services at Bruel & Kjaer will give the luncheon keynote speech. She will discuss "Changes and Trends in Noise and Vibration Engineering: The Consultant's Experience." In her remarks, Gabriella Cerrato will focus on the changes that she has witnessed in the industry and address current trends. She will provide a personal perspective on changes in consumers' expectations and in NVH technology, along with her assessment of how cultural, geographical, and gender factors have shaped her experience as a noise and vibration consultant.

Gabriella Cerrato has a Doctorate in Theoretical Physics from the University of Torino, Italy. She has worked in the noise and vibration control field for more than 25 years, with positions ranging from Acoustic Systems Engineer and Manager at FIAT in Italy (Active Noise and Vibration Group) to Technical Director of the MTS Systems consulting business unit in Detroit. Her areas of expertise are diagnostics of noise and vibration concerns, sound and vibration quality measurement and target setting, testing for correlation of CAE models,



and synthesis/prediction of contributions to products' noise and vibration performance. Cerrato co-founded Sound Answers in 2005 and has led the Sound Answers team in several Small Business Innovation Research (SBIR) Phase 1 and Phase 2 projects for the U.S. Department of Defense. She teaches several seminars and training classes a year and has co-authored papers for various professional conferences and magazines.

The SAE Noise and Vibration Conference and Exhibition is the premier technical event dedicated to mobility noise, vibration and harshness. Held biennially, this conference serves as a forum for leading automotive, commercial vehicle, and aerospace professionals to share the latest technologies surrounding NVH, and sound quality. The following topics related to vehicle design, engineering and testing will be the focus of the event:

- Engine/Powertrain/Drivetrain
- Heavy Vehicle and Vehicle Exterior
- Numerical Methods
- NVH Measurement
- Passive and Active NVH Control
- Standards, Process and Perspectives
- Vehicle Subsystem NVH
- Commercial and Specialty Vehicles

For more information about the event, the conference program, or to register, please visit <u>www.sae.org/nvc</u>.

To request media credentials, email pr(at)sae(dot)org or call 1-724-772-8522.

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