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**FOR IMMEDIATE RELEASE**

**AES Audio Product Education Institute Explains Simulation and Testing for Speakers and Microphones in Latest Webinar**

— August 11 webinar will feature presentations from COMSOL and HEAD acoustics exploring spatial responses of speakers and microphones as well as echo cancellation testing techniques —

*New York, NY, August 6, 2021* — The AES Audio Product Education Institute (APEI), created to promote methodologies, practices and technologies involved in developing and bringing audio products to market, will promote a new free webinar on its Modeling and Measurement education pillar, this time addressing “Speakers and Microphones: Simulation and Testing,” on Wednesday, August 11 (12:00pm EDT).

Multiphysics and acoustics simulation software company COMSOL and HEAD acoustics, a leading provider of integrated acoustic measurement, analysis, and optimization solutions, join the AES Audio Product Education Institute in a webinar focusing on exploring multiphysics simulation and testing practices. The ability to predict and understand spatial responses of speakers and microphones is important when developing modern consumer audio products. And, as feedback and echo cancellation play an important role in these products, the webinar will also explore echo and double-talk testing, including different echo metrics that are used in voice-quality testing.

Providing another APEI learning opportunity on the use of simulation and measurement solutions for audio product design, the two companies will share their experiences in separate sessions during the webinar, followed by time for questions. Given the importance of echo cancellation and of the ability to predict and reduce feedback in the transmission path from source to receiver, Mads Herring Jensen (Technology Manager, Acoustics, for COMSOL) will explain ways to model both the source and the receiver responses, using techniques such as reciprocity and full feedback path analysis. Early assessment is critical to the product development process, as DSP algorithms can then be developed and fine-tuned before any physical prototypes are made.

In his presentation, Jacob Soendergaard (Telecom Account Manager, HEAD acoustics) will address the different echo metrics that are used in voice-quality testing as well as double-talk analysis techniques. Topics to be covered include the definition of echo, how delay affects echo, metrics used to characterize echo and a definition of double talk and explanation of its importance as a metric. Finally, the presentation will review the different analysis techniques used to quantify double talk.

Following the opening remarks and the two presentations, the COMSOL-sponsored webinar will offer attendees the opportunity to ask questions. The webinar will help attendees expand their understanding of the use of multiphysics simulation in audio product design, addressing virtual prototyping, testing, measurement, and optimization.

This webinar from the Audio Product Education Institute underscores the AES’s commitment to providing its membership and the industry at large with information on real-world solutions for audio product development.

Interested individuals can learn more and register for free here: <https://audioproducteducationinstitute.org/speakers-and-microphones-simulation-and-testing/>.

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Photo File 1: APEI2021SocialPromo-Modeling-August11-12x9.jpg

Photo Caption 1: Jacob Soendergaard (HEAD acoustics) and Mads Herring Jensen (COMSOL) will address “Speakers and Microphones: Simulation and Testing” in the next AES Audio Product Education Institute webinar on Wednesday, August 11

Photo File 2: APEI2021SocialPromo-Modeling-August11-cleanT.jpg

Photo Caption 2: The AES Audio Product Education Institute will present the free webinar “Speakers and Microphones: Simulation and Testing” on Wednesday, August 11, at 12:00pm EDT

**About the Audio Engineering Society**

The Audio Engineering Society, celebrating over 70 years of audio excellence, now counts over 12,000 members throughout the U.S., Latin America, Europe, Japan and the Far East. The organization serves as the pivotal force in the exchange and dissemination of technical information for the industry. Currently, its members are affiliated with 90 AES professional sections and more than 120 AES student sections around the world. Section activities include guest speakers, technical tours, demonstrations and social functions. Through Conventions, Conferences, Training and Development and Member Events, and the Society’s vast online resources, members experience valuable opportunities for professional networking and personal growth. For additional information, visit [AES.org](http://www.aes.org/).

**About the Audio Product Education Institute (APEI)**

The Audio Product Education Institute (APEI) was launched in January 2020, as an initiative of the Audio Engineering Society (AES), to focus on promoting methodologies, practices and technologies involved in developing and bringing audio products to market. The Institute roadmap intends to focus on seven educational pillars: Voice and DSP; Supply Chain and Sourcing; Modeling and Measurement; Product Management; Automotive Audio; Artificial Intelligence and Machine Learning; and Business Management. For more information, visit [https://audioproducteducationinstitute.org](https://audioproducteducationinstitute.org/).

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