# One Time Special Event!

## Nov. 9-12, 2016 Washington DC

*Important changes in **NFPA72** include the of the use of the **house sound system** for **emergency** announcements. This provision opens a new market for the sound reinforcement industry and an opportunity for collaboration between the Sound Reinforcement and Fire Alarm/Mass Notification industries. More than ever, sound systems must be designed for high speech intelligibility!*

**DAYS 1 & 2**


# Emergency Communication Systems

## Part 1 - Design

*With NFPA72's provision for using the house sound system for emergency announcements, the system designer has a greatly expanded pallet. We now have access to the most powerful speech intelligibility tool in existence - loudspeaker directivity, or "Q." No longer is the question simply "How many loudspeakers?" It is now "What kind of loudspeaker(s) will produce intelligible speech in THIS acoustic environment, and where should they be placed?" It's a whole new ball game requiring a whole new skill set.*

*Who is it for?*
Sound Contractors
Sound System Designers
Acoustical Consultants

*Emphasis*
Loudspeaker selection and placement for intelligible speech, based on objective design criteria and room acoustics.

*Topics*
- Statistical vs. Geometric Acoustics
- The Room Impulse Response (RIR)
- Loudspeaker Directivity
- Loudspeaker Selection and Placement
- Power Amplifier Selection and Deployment
- Transformer-Distributed systems
- Signal-to-Noise Ratio
- Direct-to-Reverberant Ratio
- Clarity/Intelligibility
- Computer Room Modeling

*Instructor*

Pat Brown
SynAudCon

**DAYS 3 & 4**


# Emergency Communication Systems

## Part 2 - Deployment

*The code is a moving target and is undergoing constant refinement. The latest additions are game changers on how the ECS is designed and deployed. Understanding the code is step one. Integration of the ECS with the sound system is step two. Testing the finished system is step three. We've assembled the best instructors on all three topics to get you up-to-date and up-to-speed. The future is bright for the ECS professional who understands the entire process and can design/deploy compliant systems efficiently and effectively.*

*Who is it for?*
Fire Alarm Professionals
Mass Notification System Designers
Integrators
Sound Contractors
Loudspeaker/DSP Manufacturers

*Emphasis*
Code Requirements for Speech Intelligibility
Integration of Voice Evac and Sound Reinforcement Systems
Field Testing for Speech Intelligibility
Collaborate ECS - Integrating Sound and Fire Systems
Codes versus Performance: What Drives an Effective ECS?

*Topics*
- NFPA72®
- Speech Transmission Index for PA Systems (STIPA)
- Intelligibility Instrumentation for Field Testing
- Signal flow through an emergency communication system
- Interfacing fire alarm and sound reinforcement systems
- Case studies of integrated sound reinforcement/mass notification systems
- Understanding Acoustically Distinguishable Spaces

*Staff*

Wayne Moore
Jensen Hughes

Larry Rietz
Jensen Hughes

Sander van Wijngaarden
Embedded Acoustics

**These seminars can be taken stand-alone or together.**

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