

# The Role of Noise and Vibration Control in the design process

by: **Patrick Marks, PE**  
Johnson Control, York, PA

## ABSTRACT:

Noise and vibration control is an often over looked part of the design process that can lead to missed production releases, reliability problems and customer dissatisfaction. This presentation will show the role of noise and vibration control in the design process and will highlight ways to evaluate noise and vibration targets in the early phases of design. The design of a commercial centrifugal chiller will be used as example to highlight noise control design techniques.

## BIOGRAPHY:

Mr. Patrick Marks is a licensed Professional Engineer with over 20 years of experience in engineering projects relating to acoustic & vibration technologies. Presently he is an Engineering Manager in the Engineering Mechanics Group at the Building Efficiency Division of Johnson Controls. Responsible for the sound quality, stress analysis, seismic design and reliability of the JCI portfolio of commercial chiller products.

He is a Member of ASHRAE, ASME and INCE. He is currently the Chair of the AHRI Technical Committee on Sound. He has a BE Degree of Stevens Institute of Technology, and MSME from Mississippi State University and an MBA from Eastern University. He also holds eight US patents on noise control technologies and has published numerous papers on noise and vibration control and seismic design.



## EVENT DETAILS

### DATE:

Wednesday, April 1, 2015

### TIME:

1:00 PM

### LOCATION:

Babbio Center 104  
Stevens Institute of Technology

### ATTENDANCE:

This event is open to Stevens' Faculty, Students, Staff, and Invited Guests