

Institute of Noise Control Engineering of the United States of America

Eric W. Wood, Acentech Incorporated, Cambridge, Massachusetts

As an officer and a former director of the Institute of Noise Control Engineering of the United States of America (INCE/USA), I have had the pleasure of welcoming new members including dozens who joined during the past 12 months. I joined years ago, because I realized that INCE had earned the reputation of being among the world's foremost professional organizations involved in noise control engineering. Over the years I have seen the institute grow, mature and continuously serve its many members and have participated enthusiastically in many of its activities. I will, in this editorial, summarize from my perspective some of the features of INCE/USA and the important benefits that members receive.

INCE/USA was founded in 1971 to enhance the professional status of noise control engineers, to set standards for the technical competence of personnel practicing noise control engineering and to certify such competence in a manner somewhat analogous to professional engineering registration. To further its mission, INCE/USA also is engaged in the communication of technical information in its various subfields, in providing educational opportunities and in encouraging investigations and regulation-related activities.

Membership Classes. INCE/USA members are professionals working in noise control and related fields at engineering and architecture firms, research organizations, manufacturers, government agencies, consulting firms and universities. There are eight classes of membership as described below.

For election to full membership one needs to have: 1) earned a college degree in engineering, architecture, physics or mathematics; and 2) achieved a grade of 'B' or better in a full-semester course on the physical principles of acoustics or have demonstrated at least five years of professional experience in noise control engineering. Alternatively and in lieu of the above, one needs to have passed the INCE Fundamentals Examination.

A full member with a college degree and course work in acoustics, noise control and/or vibration may receive board certification after three to 15 years of professional experience, teaching or research in acoustics, noise control or vibration engineering and after passing a rigorous eight-hour board certification exam administered by INCE/USA. The opportunity to be board certified is among the important benefits available to INCE/USA members. No other professional organization offers such certification of professional status in noise control engineering. Oregon is the only state in the U.S. to

offer professional licensing in noise control engineering. The requirements for board certification resemble those for professional engineering registration. Maintenance of certification requires continuing education and/or ongoing professional service.

Associate membership is available to all persons with an interest in noise control engineering. Anyone enrolled full time in engineering, physics or architecture at an accredited college or university is eligible for student membership. INCE Members aged 65 and over who are retired may be granted emeritus membership.

Sustaining membership is granted to firms with a stake in noise control engineering that provide financial assistance to INCE/USA, helping to maintain the level and quality of its activities. INCE/USA currently has 17 sustaining members:

- ACO Pacific
- Acoustical Solutions
- AVNC Continuing Education
- Cavanaugh Tocci Associates
- Colin Gordon & Associates
- G.R.A.S. Sound and Vibration
- Harris Miller Miller and Hanson
- Hoover & Keith
- Illingworth & Rodkin
- Noise Control Corporation
- Noise Control Engineering
- Overly Door Company
- The Pennsylvania State University
- Ray W. Herrick Laboratories
- Scantek
- Vibro Acoustics
- Wyle Laboratories

Technical Activity Committees. INCE USA currently has the following thirteen technical activity committees that focus on member's specific interests.

Sources and Propagation – How sound from real noise sources is generated, and how it gets to the listener and engineering principles for noise reduction.

Passive Control – Analytical, computational and experimental approaches to noise reduction.

Active Control – Research, applications, and practice in the control of sound and vibration by active means.

Perception and Effects of Noise – Sound quality, human response to noise and vibration, modeling and predicting of annoyance.

Experimental Techniques and Instrumentation – Practical research and field measurements related to noise and vibration control and acoustics.

Transportation Noise – Technical and regulatory information, noise and vibration research and perception and reduction of

aviation, rail and road noise.

Industrial Noise – Technical and regulatory information related to the management of industrial noise.

Community Noise – Noise control engineering and noise management policies including noise exposure metrics and measurements in communities.

Product Noise Emissions – Fundamental aspects of measurement technology and methodology and standardization as applied to products.

Prediction and Modeling Techniques – Application of large-scale computer analysis codes or software to noise control and acoustic problems.

Building Acoustics – Acoustical performance of building components, materials and systems.

Standards – Development of standards, specifications and terminology for methods of measurement, evaluation and control of environmental and occupational noise.

Structural Acoustics – The vibration of structures causing noise in buildings and communities.

I encourage you to visit the INCE/USA web site and take a look at the descriptions of these technical activity committees. Find one (or two) committees in line with your specific interests and contact the committee chair identified on the web site about joining the committee. I am sure that you will receive a warm welcome from current members who share your technical interests. It is not necessary that you be a 35 year veteran – just bring a professional interest in the subject and a willingness to contribute your questions and insights.

Congresses. INCE/USA is a member society of the International Institute of Noise Control Engineering (I-INCE), an international consortium of organizations in 39 countries with interests in acoustics and noise control. Together we organize and manage the annual Inter-Noise Congresses. Inter-Noise 2008 is scheduled for October 26-29 in Shanghai, China. The theme of this Congress is "From Silence to Harmony." Next year, Inter-Noise 2009 is scheduled for August 23-26 in Ottawa, Canada.

Ten of the technical activities addressed by I-INCE and its members are listed below. Detailed information and activity reports are available on the I-INCE web site.

- Technical assessment of upper limits on noise in the workplace
- Technical assessment of the effectiveness of noise walls
- Road vehicle noise emission effects on regulations
- Outdoor recreational activities

- Noise labels for products
- Noise policies and regulations
- Noise control for schoolrooms
- Noise as a global policy issue
- Community noise – environmental noise impact assessment and mitigation

Publications Members Receive. INCE/USA members receive two technical publications, the *Noise Control Engineering Journal* (NCEJ) and *Noise/News International* (NNI). NCEJ is published electronically six times yearly and contains refereed journal articles on all aspects of noise control engineering. NNI is published quarterly by INCE/USA and I-INCE and includes news on noise control activities around the world along with general articles on noise issues and policies.


The institute also sponsors the Noise-Con series of national conferences on noise

control engineering, and the Inter-Noise Congress when held in North America. Practical papers on solving noise control problems and on noise policies and regulations are presented at the conferences and the proceedings are available from Atlas Books.

Public Policy. INCE/USA has members interested in improving noise policy here in the U.S. and interested in noise policy as a global issue. Improvements are certainly needed in our somewhat disjointed domestic noise policies at the national, state and local levels. And global noise policies need consideration as they relate to international trade. Dozens of listings on national and international noise policy can be found on the INCE/USA web site. INCE/USA members are working with the National Academy of Engineering on their important program,

“Technology for a Quieter America.” Additional information about this wide-ranging program is available at the NAE website (www.nae.edu) by searching for “Technology for a Quieter America.”

I hope that I have heightened your interest in learning more about INCE/USA, the many benefits members receive and the opportunities for you to contribute. Visit our web site and submit a membership application. The annual membership fee is small compared to the many benefits of membership. I look forward to welcoming you as a new member.

Detailed information and membership application forms are available on the INCE/USA web site www.inceusa.org. 

The author can be reached at: ewood@ac-tech.com