NOISE/NEWS

INTERNATIONAL

NOISE-CON 2014
A look ahead to Ft. Lauderdale, FL

MENTORING
Be honest, be clear, be thorough

PUBLIC OUTREACH
Using Our Communities to Promote Noise Control

AWARDS
First Michiko So Foundation Award

REMEMBERING KEN ELDRED
Founder, fellow, director, and president of INCE/USA
TUNE INTO ZERO’s SOUND SOLUTIONS

ZERO is a world-wide leader in high-performance acoustical control for doors, windows, walls or floors. Nobody does sound control better — we use advanced technology and testing to master the challenges of creating an effective barrier and preventing gaps in that barrier for the life of the assembly. Our systems are rated for use in sound studios and recording facilities, music halls, or wherever sound solutions are needed — up to 55 STC. Let us help you close the door on noise — contact us for a copy of our 20 page Sound Control brochure, and our 92 page Product Catalog, or download from our website.
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The primary change in this PDF-only volume of NNI is the ability to have “hot links” to references, articles, abstracts, advertisers, and other sources of additional information. In some cases, the full URL will be given in the text. In other cases, a light blue highlight of the text will indicate the presence of a link. At the end of each feature or department, a light blue back to toc will take the reader back to the table of contents of the issue.

- The Internet supplement contains additional information that will be of interest to readers of NNI. This includes:
  - The current issue of NNI available for free download
  - NNI archives in PDF format beginning in 1993
  - A searchable PDF of annual index pages
  - A PDF of the current NNI conference calendar and a link to conference calendars for worldwide meetings
  - Links to I-INCE technical activities and I-INCE Technical Reports

I-INCE

The International Institute of Noise Control Engineering (I-INCE) is a worldwide consortium of societies concerned with noise control and acoustics. I-INCE, chartered in Zürich, Switzerland, is the sponsor of the INTER-NOISE Series of International Congresses on Noise Control Engineering, and, with the Institute of Noise Control Engineering of the USA, publishes this quarterly magazine and its Internet supplement. I-INCE has an active program of technical initiatives, which are described in the Internet supplement to NNI. I-INCE currently has 46 Member Societies in 39 countries.

INCE/USA

The Institute of Noise Control Engineering of the USA (INCE/USA) is a non-profit professional organization incorporated in Washington, D.C., USA. The primary purpose of the Institute is to promote engineering solutions to environmental noise problems. INCE/USA publishes the technical journal, Noise Control Engineering Journal, and, with I-INCE publishes this quarterly magazine and its Internet supplement. INCE/USA sponsors the NOISE-CON series of national conferences on noise control engineering and the INTER-NOISE Congress when it is held in North America. INCE/USA Members are professionals in the field of noise control engineering, and many offer consulting services in noise control. Any persons interested in noise control may become an Associate of INCE/USA and receive both this magazine and Noise Control Engineering Journal.

NNI and its Internet Supplement
www.noisenewsinternational.net

This PDF version of Noise/News International and its Internet supplement are published jointly by the International Institute of Noise Control Engineering (I-INCE) and the Institute of Noise Control Engineering of the USA (INCE/USA). This is the third volume that is being published in PDF format only. The PDF format means that the issues can be read by freely available software such as that published by Adobe and others. It reduces publication time, saves printing costs, and allows links to be inserted in the document for direct access to references and other material. Individuals can sign up for a free subscription to NNI by going to the web site http://www.noisenewsinternational.net

Links to I-INCE technical activities and I-INCE Technical Reports
Are We Really Doing What We Pretend to Do?

Repetitions, habits make us insensitive—we all know about this general experience, but we acousticians also know that this is not true for noise and its negative effects. There is no habituation; avoiding adverse health effects of noise exposure cannot be “learned.” It needs effective noise control measures! However, repetitive demands for such really effective measures suffer from becoming habitual. They tend to get worn out, and the consequences are startling.

Two recent European publications made this particularly clear again: a contribution from the European Commission to Inter-Noise 2013 (M. Paviotti et al.: “The EU Noise policy after the second round of noise maps and action plans”) and the final report (“Quieter Cities of the Future”, see www.ta.chalmers.se) from the 2013 CAETS Forum. They both state that noise policy via the EU Environmental Directive (END) made little progress in reaching its main objective to decrease the related health effects of noise.

In the past, adverse effects were described in terms of disturbance and annoyance, but nearly 90 million people being annoyed and nearly 50 million being exposed to night levels above 50 dB could not cause effective action in Europe. Today, research is able to substantiate severe adverse health effects that are comparable to the health effects of traffic accidents. But are they adequately fought? Ever year, 1.6 million healthy life years are lost due to noise in West European urban areas, and the premature noise-related mortality sums up to more than 60,000 lives (out of 400 million)—but noise exposure still increases! If we envisage the decreased number of road deaths obtained from rigorous traffic regulations and penalties in recent years, we cannot but state that noise-related actions are yet insufficient!

So, what action is needed? If the political/social target to decrease negative health effects is really serious, noise has to be tackled by concrete measures. The spectrum of such measures is known: improved information and involvement of the public; enforcement of committing noise immission limits; ambitious and compulsory limit values at the source; holistic approaches with concerted action for measures at source, transmission path, and receiver; committing guidance in quality assurance; consequent promotion of implementing research results; and many, many others. All these must be summed up in a concrete, large-scale noise-reduction program, which also might need a stronger central role of global administrations for effective enforcement.

I know that no matter how serious or urgent the need for noise reduction is, this obvious demand got worn and thus classified as repetitive habituation. We state the need, we declare it high priority, we consider targets, we decide actions—but we fail in better protecting the health of the citizens in the end. Because, in spite of all declarations of intent, our matter is easily disregarded in the aggressive competition of social interests and priorities for substantial financial means, and it’s only financial means that can turn a noise-reduction program from best intentionsto concrete and sufficient action. Granted, there are many social, political, economic, or just consumptive interests, but if we continuously fail in putting our matter through, we provoke justified doubts in its seriousness. Do we want to be taken seriously?

Yes, we noise control engineers do! But when will we stop not doing what we declare needs to be done and pretend to do, necessarily and most urgently, to reduce the proven, high noise-related health risks we are exposed to? When will we start sufficient and sustainable action to preserve our health against noise?
Noise-Con 2014, the U.S. National Conference on Noise Control Engineering, is being held in Fort Lauderdale, Florida, on September 8-10, 2014. The conference venue is the Westin Beach Resort & Spa located right on the beach. Steve Marshall, President of Scantek, Inc., is serving as the General Chairman for Noise-Con 2014.

The Technical Program features a wide range of sessions encompassing a variety of topics important to noise control engineering. The Technical Program also includes a large exposition of vendors for noise control materials, software, and measurement instruments as well as plenary lectures from distinguished guests and technical tours of regional points of interest. The exposition will commence on Monday with a reception sponsored by the vendors.
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Recently, I have been involved in an activity that has forced me to examine INCE-USA carefully. I am a member of the committee seeking to find a new Association Management Company to partner with INCE-USA in operating the Institute. Due to the recent resignation of the current partner there is an urgent need to find a new organization that can support INCE-USA. An important part of this process are the requirements for a partner that can help INCE-USA evolve to provide greater value and be more relevant to the noise control community.

As part of this task, I have been involved in in-depth conversations on the mission of INCE, how to provide value to our members, what our priorities should be, and the expectations of today’s noise control professionals. I have come away from these discussions concerned about the future of INCE-USA and a little unsure of its roles in the future. In particular, I am concerned about the strategic path for the Institute.

INCE-USA it seems to me is at a critical stage. The field of noise control has evolved to become a complex mix of specialized topics concerned with many issues. Noise control is no less critical – it is simply different. Those practicing in the field have adjusted and made useful contributions to reducing hearing loss, reducing environmental noise annoyance, improving the perception of product quality, or other topics.

It is incumbent on INCE-USA to take a hard look at the Institute’s role and how to provide the maximum benefit to the members and the public and provide leadership for the field of noise control engineering. Some would say that this is what INCE has always done, and they are right. However, as society and the profession change, the institute must change. At the highest levels, the goals are the same. However, at the intermediate strategic level and definitely the tactical level, the methods and organization must change to be effective and meet the needs and expectations of a new generation of noise control professionals.

As an example, a founding principle for INCE-USA was the certification of qualified noise control engineers. The majority of INCE-USA members are not INCE Board Certified. Does this mean certification of competence is no longer important? I have come to believe that, as the field of noise control has evolved, the answer to this question has become more complex. There are now many specialties in noise control that require different experience and in many cases unique knowledge. The result is that in some areas noise control certification is valuable and other areas the field is so small or specialized that the value of a general noise control certification is limited. This does not mean the certification should be abandoned. The concept of certification needs to evolve. Perhaps there is a need for specialized certifications or the incorporation of specific components to the examination to address some of these specialized topics. The point is that it is important that the Institute carefully consider how the certification concept might evolve to provide better value to the members and the industry.

There are many other areas where the Institute needs to carefully consider how it should evolve to continue to provide outstanding value and leadership to the noise control community. I am not saying INCE-USA is broken. However, there is a need to evolve and take a careful look at new opportunities to provide enhanced value.
The Danish Acoustical Society (DAS) was founded over 55 years ago by a group of professionals that included Prof. Dr. Tech. Fritz Ingerslev and Dr. Tech. Per V. Brüel. Since its beginnings in 1955, DAS’ membership has grown to over 300 professionals, including over 20 sustaining members. Since its 50th anniversary in 2005, DAS has grown by over 20%, indicating the continued strength of Danish acoustics. Seventy percent of the membership is from industry, 20 percent from national and local institutions, and 10 percent from higher education. To encourage new members and to promote lifelong affiliation with the group, graduate students receive a complimentary one-year membership. The society remains dedicated to its original goals: to promote and propagate nationally the knowledge of acoustics and its practical application, and to establish national and international contact between people interested in acoustics, in particular cooperation with Scandinavian, European, and international organizations. DAS has played an important role in organizing several major acoustic meetings, the latest one being Forum Acousticum in Aalborg from June 27 to July 1, 2011, an event which DAS was proud to host for over 600 attendees.

DAS has five focus areas: building and room acoustics, electroacoustics, environmental acoustics, machinery acoustics, and psychoacoustics. Activities in each area are organised by the relevant Technical Committees, thus ensuring a high level of activity and broad representation of its members. One of the major events is the annual DAS “Day of Acoustics” where speakers from all aspects of the society are invited. DAS is especially interested in connecting scientists and practitioners within its specialty areas.

DAS assists in the review process of new acoustical standards from the Danish Standards (including ISO) and provides input to the Danish Environmental Protection Agency on new acoustical guidelines. DAS is also active outside Denmark contributing to both I-INCE and to ICA with Board Members.

Management of the society is in the hands of a six-member board - at the time of writing: Birgit Rasmussen (Danish Building Research Institute), president, and board members Claus Møller Petersen (Grontmij - Acoustica), Douglas Manvell (Brüel & Kjær), Ann Lin Enggård (Moe & Broedsgaard), Dorte Hammershøi (Aalborg University) and Thomas Ulrich Christiansen (Danish Technical University). The society is supported by a part-time treasurer and secretariat. The Society’s web address http://www.d-a-s.dk contains information on meetings, hearings of proposals for new standards, and links to courses in acoustics as well as links to sponsor’s websites (including job notices) and websites of other acoustical organizations. DAS can be contacted at email das@d-a-s.dk.

DAS is affiliated to the European Acoustics Association (EAA) and the International Institute of Noise Control Engineering, and DAS members receive publications from these two organisations (e.g. Acta Acustica) at no extra charge. Members of DAS are also admitted to the Nordic Acoustical Association (NAA). The NAA activities include organizing the Baltic-Nordic Acoustical Meetings (B-NAM) held every other year in either Denmark, Finland, Sweden, Norway, or Iceland. This year’s B-NAM regional conference is hosted by DAS and held in Hans Christian Andersen’s enchanting birthplace of Odense on 18-20 June 2012 (for more information see http://www.bnam2012.com). A report can be found at http://www.d-a-s.dk/exfiler/filer/Fun_Controversy_Acoustics_Conference_Odense_Denmark.pdf Note: The BNAM-12 proceedings can be purchased for 300 DKK by ordering through the DAS secretariat das@d-a-s.dk. Please include the shipping address as the proceedings are delivered on a USB-card. Contact DAS at das@d-a-s.dk

Member Society Profile is a regular feature of Noise News International. If you would like to have your society featured, please contact Jim Thompson at nnieditor@noisenewsinternational.net
Noise-Con 2014, the U.S. National Conference on Noise Control Engineering, is being held in Fort Lauderdale, Florida, from Monday, September 8, through Wednesday, September 10, 2014. Pre-conference events are scheduled for Saturday and Sunday, September 6th and 7th. The conference venue is the Westin Beach Resort & Spa located on the beach, N. Fort Lauderdale Beach Blvd.

Steve Marshall, President of Scantek Inc., is serving as the General Chairman for Noise-Con 2014. Gordon Ebbitt, Toyota Technical Center, and Steve Sorenson, E-A-R Acoustic Technology Center, share responsibility for the Technical Program as Technical Program Co-Chairmen. Rich Peppin is serving as the Conference Secretariat and Sunday, September 6th and 7th. The conference venue is the Westin Beach Resort & Spa located on the beach, N. Fort Lauderdale Beach Blvd.

Steve Marshall, President of Scantek Inc., is serving as the General Chairman for Noise-Con 2014. Gordon Ebbitt, Toyota Technical Center, and Steve Sorenson, E-A-R Acoustic Technology Center, share responsibility for the Technical Program as Technical Program Co-Chairmen. Rich Peppin is serving as the Conference Secretariat and Saturday, September 6th and 7th. The conference venue is the Westin Beach Resort & Spa located on the beach, N. Fort Lauderdale Beach Blvd.

In addition, a large exposition of vendors for noise control materials, software, and measurement devices will be held in the hotel's ballroom, along with table top displays throughout the foyers, providing plenty of opportunity to interact with the vendors and learn about their latest products. The exposition will commence on Monday with a reception sponsored by the vendors and offering hors d’oeuvres and refreshments. A workshop is planned as part of the Technical Program for vendors to present the latest technologies associated with their products and services. Organizations interested in exhibiting should contact the Exposition Manager.

As part of the Technical Program, three distinguished guests have been invited to present plenary lectures to open each day of the conference. Mark Schaffer, Schaffer Acoustics Inc., will speak on noise and vibration control on HVAC systems, David Lubman, DL Acoustics, will discuss archaeo-acoustics, and Mardi Hastings, Georgia Tech’s George W. Woodruff School of Mechanical Engineering, will speak on marine bioacoustics.

Short Courses & Events
Several seminars and classes are scheduled on topics such as hearing conservation, muffler design, and SEA modeling. The INCE Fundamentals exam and INCE Board Certification exam will also be offered. Click this link for short course registration details. http://inceusa.org/nc14/ShortCoursesExams.shtml

We are very pleased to host two student-specific paper/presentation competitions, each with one or more cash prizes: the Student Paper Competition and the Classic Papers in Noise Control Engineering session. The Student Lunch will be held on Monday, the Women Noise Control Engineering Lunch will be held on Tuesday, and the Young Professionals Workshop will be held on Wednesday. There are all great networking activities. In addition, awards from generous donors to support student and young professional travel to Fort Lauderdale are available.

VENUE & TRAVEL INFORMATION
Meeting attendees from every industry enjoy visiting Fort Lauderdale with its wonderful climate, beautiful beaches, growing economy, shops, fantastic dining and ease to get around. The NC14 planning committee hope you will bring your entire family and soak up all Fort Lauderdale has to offer.

Getting to Fort Lauderdale is a breeze, thanks to the convenient Fort Lauderdale/ Hollywood International Airport with free wireless internet access in all terminals. Travelers at times also use the Miami International Airport to reach Fort Lauderdale. Private car transfers from Fort Lauderdale, Miami and Palm Beach must be prepaid prior to pickup by GO Airport Shuttle & Executive Car Service. Taxi and Shared Ride services have visible kiosks outside of each terminal’s baggage claim area. Taxicab stands are centrally located at Fort Lauderdale-Hollywood International Airport and major hotels.

Parking near the beach is a premium. The NC14 committee negotiated discounted parking rates for NC14 guests as follows: $18 valet overnight or $10 daily.

With trollies, street taxis, water taxis, and plenty to do in the immediate walking...
area, guests may consider not renting a vehicle unless necessary.

The Westin Beach Resort & Spa, Fort Lauderdale waterfront setting offers diving, sailing, fishing or just quiet relaxation. But the beachside bliss is only the start: The facility has a rejuvenating spa and fitness center, serene oceanfront pool, and enticing dining.

The Fort Lauderdale (and connecting Hollywood) Water Taxi is a fun choice to reach your destination, or simply as a journey by itself. The Water Taxi is like a trolley-on-the-water. Board a Water Taxi at any stop and purchase your ticket onboard, with cash or credit card. Then choose which stops you’d like to explore, and hop off to check out Fort Lauderdale’s attractions, shopping and dining. Hop back on and head to your next stop, or just sit back and enjoy the ride.

**PAPERS**

All accepted abstract authors for program sessions have been notified. If you did not receive a notification, please check your spam filter, and if still not found, email ibo@inceusa.org with your name and paper title. All papers must be submitted by June 1, and PowerPoint presentations are due in final form by August 27, 2014.

Papers shall be between 4 and 8 pages, including Tables, Figures, References and Appendices. Presentations for approved papers shall be submitted in both PowerPoint and PDF Format. Each paper will be scheduled presentations every 20 minutes. This time includes 15 minutes for presentation, 3 minutes for Q&A, and 2 minutes to change authors.

Please note that if, in the larger picture of the conference program, the Technical Program Committee and Session Organizers believe a paper fits better in another technical session, it may be moved to that session.

The copyright is transferred to INCE, the publisher of the proceedings, at the time of paper submission. Please plan ahead and get all the required permissions to publish from your company before submitting your paper, and check that permission is possible even at the abstract submission stage. Note that all authors should be happy with the final paper, before you submit it. Also, make sure that all people who have made significant contributions to the material in the paper appear in the author list, and that people who have supported and helped in the work, who are not in the author list, are acknowledged should they wish to be.

**EXPOSITION**

NC14 extends a special thank you to DataKustic for their generous Silver Sponsor level for NC14.

The NC14 Exposition is sold out, however several key sponsorship opportunities still remain. Sponsor the Congress bags, include a digital catalog on the Proceedings DVD, show case your materials in the program book ad and much more! Visit the
Noise-Con website or contact Richard J. Peppin, PE, Exposition Manager at 301-910-2813 or via email at PeppinR@asme.org for more information.

The following exhibitors will be joining us at Noise-Con 14:
ACO Pacific, Inc.
Acoustics Systems/ETS-Lingren
ANV LLC
Asona-USA, LLC
Brüel & Kjær
BSWA Technology Co. Ltd
Casella CEL Inc.
Cirrus Environmental
Commercial Acoustics Division - Metal Form Manufacturing
Crystal Instruments
DataKustik GmbH
Eckel Industries, Inc.
ECORE International
ESI North America
G&S Acoustics
G.R.A.S. Sound & Vibration
George Koch Sons, LLC
Getzner USA, Inc.
Homasote
International Cellulose Corporation
Jamison Door Company
K-FLEX USA
Keene Building Products
Kinetics Noise Control, Inc.

Larson Davis / PCB Piezotronics
LMS, A Siemens Business
Mason Industries
Maxxon Corporation
MBI Products Company, Inc.
Microtech Gfelf M GmbH
MSC Software / Free Field Technologies
Müller-BBM Vibroacoustic Systems, Inc.
Navcon Engineering Network
Noise Barriers, LLC
NTI Americas, Inc.
OROS - Measuring Noise & Vibration
Overly Door Company
PAC International
Pliteq Inc.
Polytec, Inc.
Pyrok, Inc.
Regupol
Rion Co. Inc.
Scantek, Inc.
Sealed Air Corporation
Sensidyne, LP
Soft dB Inc.
Soundmask Canada Ltd
Soundproof Windows, Inc.
Studio Six Digital LLC
TRANE
ViAcoustics

CONGRESS SECRETARIAT
For all enquiries regarding the Congress please contact sbaase@inceusa.org.

NOISE-CON 13 proceedings now available

Proceedings of NOISE-CON 2013, THE 2013 National Conference on Noise Control Engineering. This is the proceedings of the twenty-eighth in a series of National Conferences on Noise Control Engineering organized by the Institute of Noise Control Engineering of the USA, Inc. (INCE/USA). The conference was held on 26-28 August 2013 at the Marriott City Center in Denver, Colorado, U.S.A. This USB Flash Drive contains the conference proceedings with 152 papers and was prepared by Courtney Burroughs, Sarah McGuire and George Maling. Patricia Davies of Purdue University served as conference chair. Bryce K. Gardner, ESI, J. Stuart Bolton, Purdue University, and Yong-Joe Kim, Purdue University, served as the technical program committee. The subject index for the NOISE-CON 2013 Proceedings is available on the Internet.

The URL is http://www.noisenewsinternational.net/nc13/SubjectIndex.pdf


Also included are the proceedings of three sound quality symposia, 1998, 2002, and 2008.

Including the NOISE-CON 2013 papers, a total of 1773 technical papers are included on this USB Flash Drive. All papers are in PDF format, and the flash drive is searchable by any string of text.

These papers are a valuable source of information on noise control that will be of value to engineers in industry, acoustical consultants, researchers, government workers, and the academic community.
COME TO AUSTRALIA, COME TO MELBOURNE, COME TO INTER.NOISE 2014 and have a fabulous and rewarding experience.

INVITATION TO INTER.NOISE 2014

Dear Colleagues,

The 43rd International Congress on Noise Control Engineering, INTER. NOISE 2014, will be held in Melbourne, Australia, from 16 to 19 November, 2014. Your hosts, the Australian Acoustical Society, warmly invites you to attend this important Congress. The theme for the event is “Improving the World through Noise Control,” a concept which will be the focus of many of the planned sessions.

Situated on the banks of the Yarra River, which flows through the heart of Melbourne, the venue is the Melbourne Convention and Exhibition Centre, which is a modern world class facility. A block of rooms has been negotiated at a competitive rate in the five-star Hilton Hotel, which is linked to the Congress venue, however, there are many other hotels and apartments within a short walk, ranging from backpacker to multi-star. All accommodation must be booked directly with the hotels by the delegates.

However, the Congress website, http://www.acoustics.asn.au/divisions/VIC/internoise2014, provides direct links with some of the nearby hotels.

The wide ranging technical program features two plenary and four keynote lectures, details of which are provided in the following text. Over 120 world authorities have agreed to assist organising and chairing the technical sessions, which will ensure an excellent variety of high standard papers. A 200 word (maximum) abstract can now be submitted through our website, http://www.acoustics.asn.au/divisions/VIC/internoise2014. Paper submission and registration will also be via the website. A significant number of international and Australian companies have committed to the technical exhibition. Morning and afternoon refreshments, as well as a light lunch, will be provided in the exhibition area, as part of the registration fee. There will also be an optional banquet, which will include the chance to take photographs with some native Australian animals. Something not to be missed.

I look forward to welcoming you to Melbourne and Inter.noise 2014 in November.

Norm Broner
Congress President

VENUE

The Melbourne Convention and Exhibition centre was the world’s first “Six Star Green Star” environmentally rated convention centre and represents best practice in sustainability, versatility and innovation. The centre has been designed with disabled people in mind. Offering free WiFi, it has state-of-the-art visual and information technology in every meeting room. An easy to use and highly intuitive intelligent lectern controls lighting, sound and data projection – the ultimate in self-management.
The venue is only a few minutes stroll from many of the tourist highlights of the city, which offers excellent shopping opportunities, museums and art galleries, theatres and concert halls as well as outstanding sporting venues. Try to allow some time to explore the city and also the surrounding countryside.

The conference centre and nearby hotels can be easily reached from Melbourne’s International and Domestic Airport by shuttle bus or by taxi. (Approximately a 20 minute journey).

PLENARY AND KEYNOTE LECTURES
On Sunday afternoon, at 16:00, the opening plenary lecture will be “Sound Sketch: its Theory and Application Using Loudspeaker Arrays” by Prof. Jung-Woo Choi of South Korea.

The closing plenary lecture at 15:00 on Wednesday will be “Soundscape Planning as a Complement to Environmental Noise Management” by Prof. Lex Brown of Australia.

The four keynote topics, by world authorities on their subject, will complement major areas within the Congress. They cover Aircraft Noise, Active Noise Control, Wind Turbine and LFN as well as the Impact of Building Acoustics on Speech Comprehension and Student Achievement. More details are available on our website, http://www.acoustics.asn.au/divisions/VIC/internoise2014.

SOCIAL PROGRAM
The social program commences with the welcome reception on the Sunday evening after the opening and first plenary lecture. On each of the following days, the morning and afternoon refreshments and light lunch (all included in the registration fee) will be provided in the exhibition area. The optional banquet (additional charge applies) will be held at the venue and provide, along with great food and wine, an Australiana theme. After the final sessions the closing reception will bring the congress to an end. Additional features are included in the program for accompanying persons.

TECHNICAL PROGRAM
Technical papers in all areas related to noise and vibration control will be presented as part of the technical program. The broad theme of the Congress is “Improving the World through Noise Control” and papers of specific relevance to this theme are especially encouraged.

The Congress will feature 12 parallel sessions as well as an area for poster presentation. During the year the details of technical study group meetings plus workshops and courses will be provided on our website. Below is a list of the potential congress sessions, where the code at the start is that used to designate the session in the abstract submission page on the congress website: http://www.acoustics.asn.au/divisions/VIC/internoise2014.

A1 EDUCATION / POLICY
A2 Education and outreach
A3 Community noise policy and control in Asia Pacific

B1 EMISSION: NOISE SOURCES
B2 Gas turbine noise
B3 New technology in fan duct noise
B4 Machinery noise and vibration
B5 Buy quiet
B6 Development of buy quiet policy

C1 AEROACoustics
C2 Aircraft engine noise
C3 Jet noise
C4 Airframe/flow-induced-noise
C5 New experimental techniques
C6 Computational aeroacoustics
C7 EU research projects on aircraft noise

D1 ROAD VEHICLE NOISE
D2 Motor vehicle noise vibration and harshness (NVH)
D3 Electric / hybrid vehicles
D4 Pavement modelling and measurement techniques
D5 Ultralow noise surfaces
D6 Tire/road noise - tire factors
D7 Modelling and mapping traffic noise
D8 Motor vehicle noise - policy & regulation
D9 Mufflers & silencers

E1 RAILWAY NOISE AND VIBRATION
E2 Ground-borne vibration and noise from railways
E3 High-speed railway noise and vibration
E4 Railway wheel and rail noise
E5 Rail acoustics policy

F1 TRANSPORTATION NOISE
F2 Noise events from transportation noise
F3 Limiting noise in lightweight systems
G1  WIND TURBINES
G2  Generation, perception, propagation and measurement of LFN
G3  Measurement and prediction of wind turbine noise
G4  Noise from wind turbines under non-standard conditions
G5  Wind turbines in Asia
G6  Wind turbine noise and regulations

H1  SOUND PROPAGATION
H2  Urban sound propagation
H3  Outdoor sound propagation
H4  Numerical methods for predicting outdoor sound propagation
H5  Noise mapping prediction tools
H6  Airport noise modelling and measurement

K1  NOISE CONTROL ELEMENTS
K2  Noise barriers
K3  Noise barriers and sustainability
K4  Applying building envelope design for noise mitigation
K5  Noise control within offshore facilities and maritime vessels

L1  ACTIVE NOISE CONTROL
L2  Active control of sound
L3  Signal processing for active control
L4  Applications and systems for active control
L5  Active vibration control and active structural acoustic control

M1  MATERIALS
M2  Metamaterial
M3  Nanomaterials in acoustics

N1  BUILDING ACOUSTICS
N2  Speech privacy in buildings
N3  Healthcare facility acoustics
N4  Classroom acoustics
N5  Green sustainable buildings
N6  Multifamily dwellings and lightweight structures
N7  Public Indoor and outdoor space acoustics
N8  Room acoustics
N9  Propagation and generation of low frequency noise in buildings

NA  Ratings and criteria for buildings
NB  Low frequency vibration of floors
NC  Noise from equipment and services in buildings
ND  Impact Noise in Buildings

P1  VIBRATION AND SHOCK
P2  Vibrations in bridges, foot bridges and similar structures

Q1  VIBRO - ACOUSTICS AND VIBRATION
Q2  Numerical methods in vibro-acoustics
Q3  Application of hybrid vibro-acoustic methods to noise control treatments
Q4  Vibration and vibro-Acoustic Experiments
Q5  Vibro-acoustics of lightweight composite panels
Q6  Inverse approaches in vibro-acoustics
Q7  Operational modal analysis

R1  UNDERWATER NOISE
R2  Underwater acoustics
R3  Numerical methods in underwater acoustics
R4  Underwater noise and its control

S1  SOUNDSCAPE
S2  Soundscape and noise control
S3  Soundscape and health effects
S4  Soundscape and auditory cognition
S5  Soundscape and architecture
S6  Soundscape and natural parks
S7  Soundscape and methods of evaluation

T1  EFFECTS OF NOISE/SOUNDS ON PEOPLE
T2  People’s reactions to noise
T3  Effects of noise on humans
T4  Noise and health-overall effects and susceptible groups
T5  Health related quality of life and sound
T6  Psychoacoustics in noise evaluation
T7  Loudness, other psycho acoustical parameters
T8  Sound quality

U1  WORKPLACE NOISE AND VIBRATION
U2  Practical engineering and administrative controls
U3  Health and safely aspects
U4  Advances in personal protection
U5  Metrology-calibration, and realisation of standards
U6  Sound visualization and manipulation

W1  OTHER

ABSTRACT AND PAPER SUBMISSION – REGISTRATION

- The closing date for abstract submission is 10 May.
- Full papers are required by 25 July.

Abstracts up to 200 words long can now be submitted through the congress website, http://www.acoustics.asn.au/divisions/VIC/internoise2014/ and a template for papers is also available from the site. Authors will be notified directly within two weeks of abstract submission closing if their proposed paper has been accepted.

Registration will also be made through this website. All papers must be associated with a registration fee. These are (in Australian dollars):
Delegate $720 (early bird, before 26 July), $840 (before 13 Nov.), $925 (on-site).
Student: $255 (early bird, before 26 July), $320 (before 13 Nov.), $400 (on-site).
Accompanying person: $140

Registration fees will cover entrance to the opening and closing ceremonies, all technical sessions, the exhibition, a book of abstracts and a USB stick containing the full papers. Morning and afternoon refreshments and a light lunch are included in the registration.

An accompanying person can attend the opening and closing ceremonies, the associated Plenary lectures and receptions as well as enjoying the light lunches and other refreshments. In addition they will receive a ticket to the nearby “Eureka
Skydeck,” the Southern Hemisphere’s highest viewing platform which provides stunning views of Melbourne.

The Congress banquet is optional (AUD$130pp) and should be booked at the time of registration as seating will be limited. As well as good food and drink, there will be a distinctly Australian atmosphere – some delegates may even find they are playing some wierd and wonderful musical instruments. Pre-dinner, there will be the opportunity to meet and take a photo with native Australian animals. So bring those cameras.

**Young Professional Congress Attendance Grants for INTER-NOISE 2014**

The Board of the International Institute of Noise Control Engineering (I-INCE) has approved I-INCE Young Professional Congress Attendance Grants (YP Grants) to assist young professionals/ engineers in attending the 43th International Congress on Noise Control Engineering (INTER-NOISE 2014) to be held in Melbourne, Australia, November 16 – 19. I-INCE has allocated the funds to support 15 grants, each having a value of 600 EUR. The YP Grant will include complimentary registration for the Congress. The remainder of the 600 EUR grant will be available at the time of the Congress in Australian Dollars as a contribution to partially cover travel and accommodation expenses. The notification of the award of the prestigious YP Grant may be used to assist with obtaining additional funding from other sources.

In addition, the Melbourne Convention and Visitors Bureau has initiated the Melbourne Convention and Visitors Bureau City Wide Support award. This money will be added to the Young Professionals Award, with the specification that it go to about 10 to 12 students and/or Young Professionals from developing countries to permit attendance at the Congress they may otherwise not have.

Candidates must be relatively early in their professional careers (typically less than 10 years of active career). They can be either undergraduate or postgraduate students, postdoctoral, or young acousticians or noise control engineers working in industry. Preference will be given to students.

Prior grant winners, citizens of Australia or those individuals working in Australia are not eligible for the Young Professionals Grant, so as to give preference to those from other countries. Note that the citizens of and researchers in Australia are able to apply for other grants and should contact the Australian Acoustical Society directly for information on the Australian YP support scheme(s).

For additional information, please visit the Young Professional Grants page located at [http://internoise2014.acoustics.asn.au/?page_id=458](http://internoise2014.acoustics.asn.au/?page_id=458).

**EQUIPMENT EXPOSITION**

An exhibition of the latest developments in equipment and acoustic related materials will take place in the foyer of the Conference centre from Monday morning until Wednesday lunch-time. Over 45 out of 60 booths are already booked by international and Australian companies, so we are expecting that this will prove an interesting and informative aspect of the Congress. To ensure good interaction of delegates with the exhibitors, the light lunches and much of the morning and afternoon refreshments will be provided in the centre of the exhibition area. More details on booking space in the exposition available from [http://www.acoustics.asn.au/divisions/VIC/internoise2014](http://www.acoustics.asn.au/divisions/VIC/internoise2014).

**MARVELOUS MELBOURNE AND SURROUNDS**

Melbourne offers a free City Circle Tourist Tram and Shuttle Bus for travelling around the city, passing most major attractions. Great shopping opportunities exist in department stores or down fascinating arcades and laneways. A world renowned Botanic Gardens, historic buildings and arguably the best Art Gallery in Australia brimming with European and Australian Art are some of the many features within Melbourne. A visit to Chinatown, the National Sports museum at the Melbourne Cricket ground or a cruise on the Yarra River are other options. Just outside of Melbourne, the Dandenong Ranges and many coastal and bay beaches are worthy of being explored. Possibly the most fascinating tour is a visit to the fairy penguins, which waddle in groups up the beach each evening at dusk after a day fishing in the waters off Phillip Island. Viewing Australian native animals in a bushland setting at Healsville Sanctuary or wine tasting in the Yarra Valley are also popular. Local bus tours depart daily for these areas.

Further afield in Victoria are the goldmining towns of Ballarat and Bendigo, the Great Ocean Road and paddle steamers on the Murray River. Other tourist destinations in Australia such as Sydney harbour, Uluru (Ayers Rock) and Kakadu National Park and the spectacular Great Barrier Reef are only a few hours away by air.

For a comprehensive summary of activities and tourist destinations in and around Melbourne we suggest looking at [www.visitmelbourne.com](http://www.visitmelbourne.com) or [www.visitvictoria.com](http://www.visitvictoria.com). A tour desk at the Congress venue will be open from the time of registration until the close of proceedings to give advice, local maps and other information which delegates may require.
TRAVEL INFORMATION

To and From Airport

Melbourne International Airport is open 24 hours, is curfew free and operates about 520 international flights and 3,200 domestic flights per week. A SkyBus (www.skybus.com.au) operates every 10 minutes between the airport and the bus terminal beside the Southern Cross Railway Station, which is located only a few blocks from the Congress venue and many of the city hotels. Alternatively, taxis are available to take you directly from the airport to your hotel.

Getting Around in the City

Melbourne is a great walking city with a variety of hotels, restaurants, cafes and shopping areas, including the city centre, within easy walking distance of the Congress venue. Stops for the free City Circle Tourist Tram and the free Melbourne Visitor Shuttle Bus are a short stroll away.

Delegates who wish to use the public transport system will require a “myki” card which gives you the flexibility to travel on trains, trams and buses all around Melbourne and on public transport in some regional centres. A myki visitors pack can be obtained from the Melbourne Visitor Centre at Federation Square, SkyBus terminals at Melbourne Airport and Southern Cross Railway Station and from many hotels and accommodation providers.

GENERAL INFORMATION

Visa

To enter Australia, all visitors must have a valid visa or an ETA (an electronically stored authority equivalent to a visa). For detailed information, consult Australia’s Electronic Travel Authority (ETA) at www.eta.immi.gov.au.

Climate

Melbourne’s climate is characterised by low humidity and low rainfall, with the average daily temperature in late spring being 20°C (or 68°F).

Currency and Credit Cards

The unit of currency is the Australian dollar (AUD). Exchange counters are located at the airport and at booths in the city. Internationally recognized credit cards are accepted at most hotels, shops, and restaurants. ATM’s are located at many venues.

Taxes and Tips

Delegates will be eligible to claim a refund of the 10% Goods and Services tax (GST) paid while in Australia, on any goods over AUD$300 purchased in one store on one receipt. The refund can be claimed on more than one item, providing they are taken as carry-on luggage or worn on their person when leaving Australia.

Modest tipping is common for good service but is not obligatory.

Electricity

Australia uses a 240 volt AC at 50 Hz system although many hotels also have 110 volt outlets. Always check the power supply before using electrical equipment.

Language

The official language of the congress is English.

Official Invitation

A personalized letter to participate in the Congress can be obtained by contacting our Congress Secretariat at liz@internoise2014.org. Please include your abstract number and paper title when making the request. It must be understood that such an invitation is only to help visitors obtain approval for travel or a visa and is not a commitment on the part of the Organizers to provide any financial support.

CONGRESS SECRETARIAT

For all enquiries regarding the Congress please contact liz@internoise2014.org.
INCE/USA Approves Two Public Information Documents

Since the publication of the “Technology for a Quieter America” report in 2010, a TQA follow-up program has been established to identify specific noise topics and develop relevant recommendations aimed at improving the noise climate in the United States. To date, two reports have been published and have been approved by the Board of Directors of the Institute of Noise Control Engineering (INCE/USA) for distribution as public information documents.

The first, “Noisy Motorcycles: An Environmental Quality-of-Life Issue” is based on a roundtable hosted by the National Academy of Engineering in Washington, DC on October 24, 2012. Motorcycle manufacturers, aftermarket manufacturers, government, noise control engineers, state police, and the public were all represented at the roundtable. The discussion focused on motorcycle regulations promulgated by the U.S. Environmental Protection Agency and the effect of those regulations on the ability to control motorcycle noise at the local level. The federal regulations are now more than 30 years old, and need to be updated. Locally, noise problems are created by motorcycles with modified exhaust systems, and local authorities have a very difficult time identifying motorcycles which do not meet federal noise requirements and preventing unnecessary noise in the community. The report includes 30 recommendations for federal, state and local actions. A free copy of the report in PDF format may be downloaded from the INCE/USA web site: https://www.inceusa.org/sites/default/files/MotorcycleReport.pdf

A second report titled “Cost-Benefit Analysis: Noise Barriers and Quieter Pavements” is also available for free download as a PDF file. It is based on a workshop hosted by the National Academy of Engineering in Washington, DC on January 16, 2014. The workshop and the subsequent report are the result of cooperation between the TQA follow-up team and the DOT Volpe Center in Cambridge, Massachusetts. Through the end of 2010, 47 state departments of transportation and the Commonwealth of Puerto Rico have constructed more than 2,748 linear miles of barriers at a cost of close to $5.5 billion (in 2010 dollars). Barriers are expensive. They reduce noise as it propagates, do not reduce noise at the source, and are not always feasible. At highway speeds, the main source of noise emission is interaction between vehicle tires and road surfaces. Considerable progress has been made in understanding this noise source, and development work has shown that considerable reductions in noise emissions can be achieved by changing the design of the road surface. The workshop and subsequent report explore the costs and benefits of barriers and quieter pavements. In some cases, the optimal solution to a highway noise problem is a combination of a barrier of a certain height and a quiet road surface, and these options are examined in the report. This second report can be downloaded from the INCE/USA web site at no cost. Go to http://inceusa.org/Reports/CBAreport140707.pdf

1 www.fhwa.dot.gov/environment/noise/noise_barriers/inventory/summary/sintro7.cfm
Mentoring in Acoustics Education, Consulting, and Research

INTRODUCTION

This article reports on Session 16.08 at Inter-Noise 2012, “Mentoring in Acoustics Education”. The authors invited for the session presented their individual perspectives of mentoring in acoustics education, consulting and research.¹ The genesis of the session was informal conversations after the death of Ken Eldred. All of the authors had worked with Ken at Bolt Beranek and Newman Inc. (BBN) or at Wyle Laboratories (Wyle) and remembered him as an important mentor early in their professional careers. In addition, all had worked with Ken after he had formed Ken Eldred Engineering. All identified Ken as a model mentor. Four of the authors began their professional careers at BBN for more than a decade in the late 1970s and early 1980s. The fifth author, Ben Sharp, works at Wyle Laboratories. All of the authors have worked together professionally.

The session was in two parts: the five papers; and an extended period of comments, questions and round-table discussions among the presenters and attendees. This article explores both parts of the session.

The principal conclusion I draw from reviewing all of the papers and preparing this article is that giving and receiving mentoring improves lives of the participants and their ability to contribute to our world. It is a key element in our nurture. We become more complete people, better participants in our professions, in our communities and in our families. A second conclusion is that the authors agree on the key elements of mentoring, even though they describe them from different perspectives. They agree that mentoring involves: (1) mutually-beneficial and supportive relationships between colleagues or friends; (2) sharing experience, insights and knowledge; (3) given most often without expectation of remuneration; and (4) typically, but not always, from an older person to a younger person.

THE PAPERS

1. “What is Mentoring” by Nicholas P. Miller

Mr. Miller focuses on his personal experience of mentoring in the professional environment. Beginning with the statement that “mentoring means sharing wisdom,” he asserts that, in the sharing, the person who is the source of the wisdom need not be older than the receiver of the wisdom. Rather, the “sender” of the wisdom and the “receiver” must be able to have open and easy conversations. When mentoring is a lifestyle within an organization, learning comes from robust dialog between individuals, dialog where the participants verify that they have mutual understanding of matters as the result of detailed discussion.

Mr. Miller concludes that consultants need to think carefully about the opinions and recommendations they make during projects. They must Identify the degree of certainty that they have and separate hunches from fully thought-out conclusions. They must also be open to new ideas or ways of analyzing problems.

Incidental or serendipitous mentoring mentoring that occurs as a by-product of a consulting interaction. In one example, Dick Bolt participated in discussions with a product manufacturer and was willing to share expertise with the manufacturer even though the manufacturer was not a client. He built trust with the manufacturer and showed other participants in the meeting that there can be more to gain from sharing our knowledge freely than there would be from demanding payment for everything we do as consultants.

Explicit mentoring, mentoring that is sought out because the mentor is a known source of certain skills. He cites as an example a discussion with Ken Eldred about building proposed as a noise barrier at Boston-Logan International Airport. Ken suggested an analysis method, diffraction analysis, that would give useful results and avoid speculation about variable conditions such as turbulence. The building was built and the resulting noise reduction met the project goals.

Experiential mentoring, mentoring that occurs among members of a project team. Working on a project together provides many opportunities for learning. He cites working with Chuck Dietrich on review of a final report as “an advanced course in concise writing.”

Mr. Miller concludes that consultants need to think carefully about the opinions and recommendations they make during projects. They must Identify the degree of certainty that they have and separate hunches from fully thought-out conclusions. They must also be open to new ideas or ways of analyzing problems. (There are always new things to learn.)
1. “Mentoring – a career path” by Andrew S. Harris

The author identifies the significance of mentors throughout his life, both personal and professional. He asserts he has had many mentors throughout his life and describes the roles of significant individuals and the environments in which he found them. Some are teachers in secondary school, college and graduate school. Others are supervisors and co-workers in a professional environment. A final group is friends and relatives. In the discussion of teachers, he identifies three characteristics that separate mentoring teachers from ordinary teachers: “(1) they not only know their subject, they have a passion for it; (2) they want to give their students the opportunity to develop a passion for [the] subject as well; and they are eager to provide for the individual needs of each student. He also asserts that these are also characteristics that separate mentoring co-workers from other co-workers and mentoring friends from ordinary friends.”

The question posed in the paper is, “what role have these mentors played in my life?” The short answer is “a major role”. Since beginning formal schooling, and to the present time, mentors have “shaped my life and made me who I am”.

He identifies key mentors during major chapters of his life. Beginning during middle school and high school, including math, English, physics and public speaking. It is clear that the teachers instilled an appreciation for their fields, a love of their subject and feeling of being respected by the teachers. High school provided a solid basis for moving on to college. During college, mentors helped during the transition from a senior high school class of 27 to a college freshman class of 1,100 and throughout college. He found the academic resources of college extraordinary, including opportunities to work closely with world-class experts even as a freshman. These individuals exhibited the three characteristics of mentors. Studying with them broadened his view of the world and helped him to have a positive view of the future. Experience during graduate school in architecture led to a career. Bob Newman’s courses introduced him to acoustics. They led to a career in architectural acoustics and noise control at airports.

He concludes that receiving and giving mentoring have been central elements of his life and states that “they have made life exciting, rewarding and fulfilling.”


Mr. Barnes and Mr. Wood draw upon nearly 40 years of experience as consultants and managers at BBN and Acentech. The authors have a “career-long close friendship that includes serving each other as trusted and respected mentors.” They present their definition of mentoring and describe their experiences with mentoring at both companies.

Their definition of mentoring is detailed, consisting of the following elements:

- Part of ongoing relationships
- Mutually-beneficial and supportive relationships between colleagues or friends
- Sharing experience, insights and knowledge
- Most often without expectation of remuneration
- Typically, but not always, from an older person to a younger person

The authors refine each element of the definition to be sure that readers understand them clearly. They consider mentoring experiences at BBN and Acentech separately. Mr. Wood was lead author of Sound Ideas: Acoustical Consulting at BBN and Acentech. While writing the book, the authors asked a large group of experienced consultants who had worked together at BBN to share insights about consulting and what advice they would give to women and men who were beginning a career in acoustics. Seven ex-BBN consultants provided detailed recommendations, some of which are shown below.

- Write clearly, concisely so that the client can understand your recommendations
- Write what you “think or believe”, not what you “feel”.
- Be honest with your client; if you do not know what to recommend, suggest who would.
- Teach the client enough of the “what, why and how” of acoustics so that the client can explain the recommendations to other people.
- Understand the full implications of proposed solutions, not just the separate engineering tasks.

When the authors began considering mentoring experiences at Acentech, they enlisted input from current Acentech staff. The staff had experience with mentoring in other organizations (i.e., colleges, graduate schools, government agencies and large engineering firms). They present lengthy discussions of the input received, but draw no conclusions.

The authors also examined published findings on mentoring. Their findings were that informal mentoring (as found at BBN) is better than rigid, formal mentoring or no mentoring at all.

They conclude that informal mentoring, as defined at the beginning of this paper, is that the best form of mentoring for an organization and the individuals in the organization.

3. “Mentoring for the Engineering and Consulting Professions” by Ben H. Sharp

Mr. Sharp author considers how to help young engineers to enter the workplace from academic environments and become
He states that three elements are essential for success in engineering and consulting:

- Project Planning and Execution
  Be sure that the objective, the schedule and the budget are defined at the beginning. First, think about the problem and be sure that your plan meets the client’s needs. If you are not knowledgeable about the problem, find someone who is knowledgeable – get help.

- Use of Measured Data
  Measurements are useful, but it is essential to plan measuring programs carefully and fully. Be sure that you get as much data as the program really needs and be sure that you document all of your data fully. Do not restrict data acquisition to project information. (Take a sound level meter home with you and learn about the noise environment where you live!)

- Checking the Results
  When you have analyzed your measurements, make sure that your results fit data. For example, do they make sense? Are they what you expected? Are they consistent with work of others? What questions will your supervisor ask?

- Writing the Report
  The report communicates your work to your client. Write it carefully in clear, concise English. State the objectives, the work plan, the measurements, the conclusions and the recommendations.

The author ends the paper by stating he has touched on only a few areas that can help young engineers to broaden their perspectives and solve practical problems. He also “gratefully acknowledges the mentoring and support provided by the late Kenneth Eldred who had the ability to break down complex problems into simple components that could be understood and solved, often using limited available data and simple theoretical models.”

4. “Mentoring – a business Model” by Andrew S. Harris and Eric W. Wood

BBN was founded in 1948 to provide consulting services in acoustics. It became a mentoring environment for acousticians. Mr. Harris and Mr. Wood worked together at BBN from 1970 to 1981. It was an exciting time in acoustics and at BBN. The National Environmental Protection Act (effective 1970 January 1) and the Noise Control Act (1972) and the growth and decline of the EPA’s Noise Office set the stage for environmental activity. This period also coincided with major architectural acoustics projects – performing arts centers throughout the world, for example. BBN’s senior staff included leaders in all of these fields. The authors benefited from the mentoring environment and the willingness of senior staff in all disciplines to share their knowledge and wisdom. Subsequently, the authors went on to help found firms that use the same model. In this paper, they offered their experiences at BBN and later as a catalyst for discussion of mentoring in this session of Inter-Noise 2012.

The idea for the session evolved from discussions among the authors and Nick Miller after the death of Ken Eldred. They had all worked with Ken during his time at BBN and we admired his imaginative work and his leadership.

The key quality of the BBN environment were: (1) the centrality of mentoring; (2) the amazing technical depth of BBN’s technical staff; and (3) the high quality of BBN’s services to clients. When they left BBN to found Harris Miller Miller & Hanson Inc. (HMMH in 1981) and Acentech (in 1989) they adopted the original BBN model: (1) the centrality of mentoring; (2) building a highly-qualified staff; (3) providing the best consulting possible; and (4) remaining a privately-held company. Both HMMH and Acentech are employee-owned companies.

The paper focuses particular attention on two characteristics of the firms: (1) the nature of mentoring; and (2) the importance of being employee-owned businesses.

- Mentoring relationships focus on the skills and needs of each individual. Wisdom and experience exist in senior staff and junior staff alike. Mentoring moves in both directions. Senior staff learns from junior staff and junior staff learns from senior. Open-door policies facilitate the process.

- Employee ownership allows the firms to focus on long-term goals, not on the quarterly reports that haunt public companies. Management has shifted to a second generation at both companies and the companies benefit from fresh blood in the senior positions.

THE COMMENTS AND ROUND-TABLE DISCUSSIONS

All sessions at Inter-Noise 2012 ended with a brief period for comments and questions. The organizers of this session hoped that all attendees would contribute their perspectives on mentoring and participate in a “lively discussion”. The discussion was lively. Participants included former BBNers, and individuals who had questions and comments about mentoring and the five authors. All participants raised questions and offered assessments of different kinds of mentoring programs.

I think the session provided a valuable forum for critical discussion of mentoring. It has also sparked continuing conversations among the authors. I believe that Ken Eldred would have enjoyed participating in the session and I am sure that he would have offered thought-provoking comments.
Public Outreach Workshop on Noise in Communities and Public Areas

Darlene E. Kilpatrick, Lawrence S. Finegold, and David Sykes

INTRODUCTION

Noise is a significant social and public health problem, particularly in urban areas. Documented health effects include hypertension, increased risk of stroke and heart attack, sleep disturbance, speech interference, annoyance, compromised enjoyment of natural quiet, and a general decrease in the quality of life (WHO 2011). Protected natural areas, flora and fauna are also affected; noise exposure in national parks and wilderness areas has been documented by the US National Park Service (NPS) (Reid and Olson 2013). Successful resolution of these problems requires informed public support for improved noise management policy at all levels of government.

One method of stimulating collaboration and gaining public support is hosting free public outreach workshops. On August 27th 2013, the public outreach workshop “Noise in Communities & Natural Areas” was held in Denver, Colorado, USA, and co-chaired by Towards A Quieter America (now “Quieter America” [QA]) and the NPS1. The workshop was held concurrently with the Institute of Noise Control Engineering (INCE) Noise-Con conference. This was the fourth in an ongoing series of free public outreach workshops in the United States on community and environmental noise management organized by QA. Previous public outreach workshops in the US were held in Baltimore (2010), Seattle (2011), and New York City (2012).

These free public workshops comply with the National Academy of Engineering’s (NAE) recommendation for organized public outreach to educate & inform Americans about exposure to noise, the effects of noise, noise policy, and noise control options (NAE 2010). The QA workshops are endorsed by the National Research Council Transportation Research board/ADC40, The National Hearing Conservation Association (NHCA), INCE, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Technical Committee 2.6, and multiple American National Standards Institute (ANSI) Working Groups. Quieter America was and continues to be chaired by Lawrence Finegold and David M. Sykes with Darlene Kilpatrick as the Executive Assistant.

The primary sponsor of the “Noise in Communities and Public Areas” workshop was the Michiko So Finegold Memorial Trust (MSFMT) which also sponsors QA.

BACKGROUND: MICHIKO SO FINEGOLD MEMORIAL TRUST

The MSFMT came to fruition following the tragic loss of a dynamic, passionate, and caring woman: Dr. Michiko So Finegold. Michiko passed away suddenly in 2011, entrusting her husband, Lawrence Finegold, with her legacy. Mr. Finegold established the MSFMT to honor his late wife and continue their important work.

Michiko So was born in Tokyo, Japan in 1954 to a prominent and influential family. She graduated from Nihon University with a PhD in Engineering Science (Field Study of Noise Effects and Community Evaluations Concerning Aircraft Noise) in 1983. She served as a lecturer at Nihon University from 1983-2000 where she taught courses on various topics including Neighborhood Noise and Insulation Programs. She studied environmental noise problems related to traffic, industrial, residential and commercial areas. As a result of her work Dr. So was awarded the Institute of Noise Control Engineering, Japan (INCE/J) Encouragement Prize in 1987. During her career she made significant contributions to identifying and addressing a wide variety of noise problems in Japan.

In 2000 Dr. So married Lawrence Finegold and together they began to work internationally as consultants on noise effects research issues and noise policy topics. In May 2010, Dr. Michiko So Finegold, her husband Mr. Lawrence Finegold, and Mr. David Sykes formed what is now “Quieter America” to organize outreach in support of noise research and public policy. The Michiko So Finegold Memorial Trust collaborates with QA to stimulate public interest in acoustical science and noise control and to assemble scientific and professional organizations into a joint task force capable of having an effective voice in public policy. Their focus is to use scientific data to raise awareness on the effects of noise and influence public policy through outreach. In addition, QA stimulates problem-solving through dialogue with leaders in national and international governments, government agencies and NGOs. The foundations for their current work are the publications Burden of Disease From

1 NPS does not endorse or promote any product, conference, foundation, or organization by their involvement in Public Outreach Workshops.
Environmental Noise (WHO 2011), Technology for a Quieter America (NAE 2010) and Protecting National Park Soundscapes (Reid and Olson 2013). These documents provide the basis for a profession-wide strategic road map for acoustical science and noise control engineering.

WORKSHOPS

Each public workshop tailors its topics to be relevant to the communities in which they are held. For example, cities in Colorado such as Denver and Colorado Springs have progressive noise regulations to protect their health and wellbeing as well as the sanctuary of the mountains and open spaces. Over 150 people participated in the Denver workshop. Participants included concerned citizens, employees of the NPS, the US Forest Service, non-governmental organizations, city/state government officials, and INCE members from the concurrent Noise Con conference. Presenters included international scientists, INCE and QA members, university researchers, naturalists and public figures. Topics included the effects of noise on human health, current noise policy, recent research and potential solutions. Issues such as quiet in natural areas and the loss of natural sound were addressed through the vital collaboration with NPS; primarily by Dr. Kurt Fristrup, Branch Chief for Science and Technology in the Natural Sounds and Night Skies Division of Natural Resource Stewardship and Science.

The workshop offered a unique forum where noise experts, Noise Con attendees, and the public could interact. The public format allowed engineers and policy-makers to hear what is important and where our current regulations or technologies fail the average citizen. Presenters and INCE members dialogued with the public on steps they could take to reduce noise and increase quality of life. The workshop was divided into three sessions: morning, afternoon and evening, with multiple keynote speakers. Each session was followed by a question and answer period with the presenters from that session and the attendees.

SUMMARY OF PRESENTATIONS

The morning session began with the introduction of the keynote speakers by QA chair Lawrence Finegold. The morning keynote speakers were Dr. George Maling (chair of the committee that produced Technology for a Quieter America [NAE 2011]) and Eric Wood (past president, INCE-USA). Dr. Maling summarized key sections of the Technology for a Quieter America report and emphasized the chapters on community noise, metrics for the assessment of environmental noise, the role of government and public information on noise control. Mr. Wood presented the difficulties of enforcing motorcycle noise ordinances at state and local levels. He also discussed potential solutions through education and behavior modification. This was followed by QA chairs Lawrence Finegold and David Sykes. Mr. Finegold discussed community-based environmental noise management, such as techniques available to local communities and governments to take pre-emptive and mitigating actions to reduce community noise. Mr. Sykes reviewed past and current national noise policies, the challenges associated with revising them and the importance of updating these policies after decades of neglect to increase their relevance in today’s society.

The afternoon session began with introductions by QA chair David Sykes. The first presentation was by Bennett Brooks (Brooks Acoustic Corporation) who summarized the ANSI standards and provided guidance for the development of local noise ordinances that are appropriate for local circumstances. Mr. Brooks suggested that local ordinances should provide a technical basis to manage the local sonic environment and help communities decide which sources of noise need to be regulated to have an improved acoustical quality of life. Following Mr. Brooks, Nicholas Miller (Harris, Miller, Miller and Hanson, Inc.) discussed the complexities involved with defining, assessing, improving and preserving quiet areas. Mr. Miller also postulated that many of these difficulties are associated with differing human interpretations about what types of noise are considered desirable or undesirable in natural areas. This was followed by Dr. Jessie Barber from Boise State University who presented recent research on how traffic noise influenced habitat use by birds to where some habitats that were otherwise suitable were excluded solely due to the influence of vehicular traffic noise (Francis and Barber 2013). Dr. Barber also discussed how increased anthropogenic noise can be detrimental to the survival of many bird species. Eddie Duncan (Resource Systems Group, Inc.) discussed how he used public input to develop scientifically sound noise pollution policies for Vermont’s rural communities and the importance for the community input. Jan Jabben (National Institute for Public Health and the Environment, the Netherlands) talked about the importance of preserving and improving the areas of natural quiet such as urban parks and open spaces, particularly in densely populated areas. He discussed a study that rated public opinion on the accessibility and quality of urban parks and open spaces and how such data can be used to influence policy. Les Blomberg (Executive Director, Noise Pollution Clearinghouse) gave the final presentation of the afternoon session where he discussed how industrialization, particularly increased vehicular and aircraft traffic, has greatly reduced natural quiet. Mr. Blomberg presented a model to predict which public land had the highest level of natural quiet based on minimal amount of vehicle and aircraft traffic.
The evening session began with introductions of the keynote speakers by QA chair Lawrence Finegold. The evening Keynote Speakers were: Dr. Arline Bronzaft, Dr. Kurt Fristrup, Julie Zickefoose and Erik Lindbergh. Dr. Bronzaft discussed her research on the adverse impacts of noise on children’s classroom learning and the adverse effects of noise on mental and physical health. She is an author of “Why Noise Matters: A Worldwide Perspective on the Problems, Policies and Solutions” (Stewart and Bronzaft 2011). Dr. Kurt Fristrup from the NPS presented research on noise levels in national parks and the need to preserve the natural sounds of national parks. Dr. Fristrup talked about acoustical conditions in various national parks and presented models predicting sound levels throughout the continental U. S. He also discussed the coordination of NPS with the aviation industry to reduce air traffic over national parks. Radio host and renowned naturalist Julie Zickefoose talked about the basic human need for connecting to nature and wildlife, which she captured in her 2012 book, entitled: “The Bluebird Effect: Uncommon Bonds With Common Birds.” The final speaker of the workshop was aviator and entrepreneur Erik Lindbergh, grandson of the famed aviator Charles Lindbergh. Erik Lindbergh was an inspirational speaker who shared how he triumphed over adversity, reminding us that even in the face of seemingly impossible odds one can persevere through hard work, commitment and dedication. His current challenge and quest is to move the future of flying toward the use of electric aircraft to reduce aviation noise.

SUMMARY OF PUBLIC COMMENTS
There were numerous questions and comments from the attendees - too numerous to be included in this paper. However, we will summarize the most common questions and concerns. Common complaints were about railroad noise and loud music from vehicles during nighttime hours. The railroad issue was in regards to the mandatory use of the horn when traveling through urban areas, which typically occurs at night when there is less vehicular traffic. The question arose from a local nurse who expressed concern that such noise could result in health issues. The panel explained that this horn use was initially developed for rural areas and that exemptions could be granted to individual communities. The loud music from “boom cars” was a challenging issue as local law enforcement officers are not provided with the means or personnel to measure the decibel level and enforce local ordinances. A panel member suggested that even if local law enforcement were able to measure the decibel levels, federal regulations are so technical they become impractical and prohibitive.

There was an expression of overall frustration about the apparent lack of interest and apathy on the part of federal regulatory agencies regarding the issues of noise, particularly compared with current published research and policy coming from Europe. The panel explained that the difficulty in the US is that there is no longer a single federal agency responsible for monitoring noise issues. There are several agencies that have taken matters into their own hands. However, the current challenge has become one of counterproductive “turf wars” between these different agencies. Different measurement methods and metrics are used by the individual agencies resulting in inconsistent and incomparable results and little to no inter-agency communication. It was suggested by the panel and attendees that most of the general public has the ability to measure noise levels through applications on their mobile telephones. And while such measurements may not be consistent among individuals, “crowd sourced” data could provide a meaningful and significant foundation on which to build a larger body of scientific evidence to present to policy makers.

Not all comments were those of doom and gloom and several success stories were shared. For example, in Estes Park, Colorado a league of women voters became concerned about the noise associated with commercial tourist aviation over nearby Rocky Mountain National Park. These women educated themselves on the issues of noise and local noise ordinance, engaged the public and were successful in proposing a ban on local air tourism which was enacted by the Colorado State Legislature. An attendee from Maine shared the successful upholding of noise limits on farm wind turbines in his local community through thoughtful discussions with local city planners. A panel member also pointed out the establishment of acoustic guidelines for schools. An overarching theme was that change needed to begin at the local level and that enacting and enforcing local noise ordinances would likely solve many of the problems.

THE FUTURE OF QA AND MSFMT
The Michiko So Finegold Memorial Trust and QA will continue to offer free public workshops to gain public awareness and support. The 2014 Noise Con in Ft Lauderdale, Florida will host the next QA public workshop. The workshop will focus on the effects of noise on marine life and birds.

Lawrence Finegold and David Sykes continue to be active and influential participants in INCE, ICBEN, and other noise related organizations. The MSFMT will offer its first medal to award scientific excellence in advancing the quality of life through scientific research on the effects of noise at the International Congress on the Biological Effects of Noise in Nara, Japan, in June 2014. Quieter America and MSFMT are also collaborating with Transcends Films to assist with the
production of a documentary film on the effects of noise called “The Pursuit of Silence”.

Quieter America believes in order to influence governments, agencies and NGOs, it is essential for established professional organizations to form an organized joint task force with shared goals that can awaken and catalyze public concern. These organizations must speak with one voice. To achieve these goals, MSFMT and QA are encouraging relevant professional societies to meet and agree on a shared agenda. The ultimate goal is to meet with US policymakers and create new policies and regulations that make the US a leader in noise policy once again.

LITERATURE CITED

ABOUT THE AUTHORS
Darlene Kilpatrick, MS, has worked for over 20 years as an educator, biologist and ecologist for various State and Federal agencies and non-governmental organizations. Her research interests include understanding and reducing the detrimental effects of anthropogenic noise on ecosystems, people and wildlife and empowering the public through education to address these issues.

Lawrence Finegold is a member of the National Academy of Engineering Einstein Society and trustee of the MSFMT. He is a research psychologist, international lecturer & consultant and has been engaged in research on the effects of exposure to noise, particularly aircraft noise, and development of community & environmental noise policies since 1986. He has authored or contributed to 80+ publications on noise effects research and policy.

David M. Sykes has been involved in noise policy since 2000 and is a founding co-chair of ANSI S12 WG44, president of ARC LLC, and a chair of Quieter America. His research interests include noise and its impacts on productivity and health. He has authored, edited or contributed to numerous books, reports and papers on policy issues related to privacy, noise and health, and emerging materials.
Sound Visualization and Manipulation: Theories and Applications

Ken Eldred was for decades an exceptional outstanding member of our noise control engineering profession. He was a founder, fellow, director, and president of INCE/USA. He was a fellow of ASA and received their Silver Medal in Noise in 1994. He was also elected in 1975 to the National Academy of Engineering.

A Special Session in Honor of Ken Eldred was held during the Spring 2014 ASA meeting in Providence. For colleagues and friends not able to attend the session, copies of the agenda, slides by five presenters, a photograph of family members who attended, and a photograph of the presenters are available at the INCE/USA website.

Go to: inceusa.org

Within the red box near the bottom of the first page you will see “In Honor of …”

Click on “on line” to download copies of the presentations.

Or click on “About INCE” and then click on Ken Eldred to download copies of the presentations.
The First Michiko So Foundation Medal for Acoustics Research Awarded to Wolfgang Babisch at ICBEN in Japan

David Sykes

Last week culminated a year-long strategy project to develop and launch a new foundation-endowed medal for excellence in research related to public policy on the subject of noise and health. The new medal is sponsored by the MSF Memorial Trust, a foundation based in the USA that is specifically focused on the health effects of noise.

The first medal was presented at the triennial meeting of the International Commission on Biological Effects of Noise (ICBEN), held last week in Japan’s ancient capital, Nara.

In the attached picture, the medal recipient Wolfgang Babisch PhD is in the middle (a well-known researcher with the World Health Organization) and is flanked by Stephen Stansfeld MD, PhD (President of ICBEN) and the head of the MSF Memorial Trust, Lawrence Finegold, chair of ICBEN’s public policy committee.

Mr. Finegold endowed the medal in honor of his wife, Dr. Michiko So, a direct descendant of Japan’s 16th century emperor, Toyotomi Hideyoshi; Dr. So was a career-long noise effects researcher. Dr. Michiko So died while caring for her family following the 2011 Tohoku Earthquake & Tsunami in Japan.

The medal is intended to memorialize Dr. So, and also to focus the attention of researchers and policy makers on the need for research on the effects of noise on health. The foundation contemplates that the medal may be presented under the auspices of several noise- and hearing-related professional societies.

We were honored to lead this memorial project as a friend and colleague of Dr. So and her husband Mr. Finegold and hope the medal will achieve its strategic objective of stimulating interest in research in this field.

At the same meeting in Nara, on behalf of another strategy project supported by the MSF Memorial Trust we arranged for the trailer for the forthcoming feature documentary “In Pursuit of Silence” to be shown, for the producer to address the meeting and for the director to film interviews with Dr. Babisch, Dr. Stansfeld, Dr. Paul Barach and others. The MSF Trust supports this feature film project, aimed at film festivals and theatrical distribution, in recognition of the need for effective public outreach to create awareness of noise-related health issues. See: http://www.pursuitofsilence.com/.
ICSV22 ANNOUNCEMENT

The 22nd International Congress on Sound and Vibration (ICSV22) will be held from 12 to 16 July 2015 in Florence, Italy. ICSV22 participants will be able to take part not only in a congress with a first-rate scientific programme but will also be able to experience the vibrant culture of Italy. The Congress venue will be the Firenze Fiera Congress & Exhibition Centre, an exclusive area in the centre of Florence. The venue is only ten minute’s walk from the old city and 1 km from the famous Cathedral of Santa Maria del Fiore. The ICSV22 website, http://www.icsv22.org, is now available. The deadline for abstract submission is 1 December 2014. The ICSV22 Scientific Programme will include invited and contributed papers and the following distinguished plenary lectures: Otto von Estorff, Germany, Finite Element and Boundary Element Modeling; Kirill Horoshenkov, United Kingdom, Porous Material Characterization via Acoustical Methods; Dick Botteldooren, Belgium, Modelling Noise Effects, and Soundscapes; Semyung Wang, South Korea, Sound Focusing and Practical Applications; Lily M. Wang, USA, Room Acoustics Effects on Speech Comprehension of English-as-Second-Language Versus Native Language; Wim Van Keulen, Netherlands, Noise-Reducing Pavements; Roberto Pompoli, Italy, Opera House Acoustics. Companies are invited to exhibit, please contact Michel Rosmolen at michel@geonoise.com and/or Gaetano Licitra at g.licitra@arpad.toscana.it. The ICSV22 is sponsored by the International Institute of Acoustics and Vibration (IIAV), and co-organized by the Acoustical Society of Italy (AIA), National Research Council of Italy, and the University of Florence.
Acoustics Week in Canada

With summer around the corner, it is time to start thinking about fall!

Acoustics Week in Canada <http://awc.caa-aca.ca> takes place October 7-10, 2014. The abstract submission deadline is June 15th. This year marks the first time that we will be meeting in Winnipeg. Our reception will take place on Tuesday (October 7), the evening before the first day of technical sessions, and will take place at the new Human Rights Museum <http://museumforhumanrights.ca>. Karen Turner and Ramani Ramakrishnan are serving as Conference Chair and Technical Chair, respectively. The abstract submission portal <http://awc.caa-aca.ca/index.php/AWC/AWC14/schedConf/cfp> is open and ready for your abstract!

Canadian Acoustics Journal

It’s easier than ever to publish in Canadian Acoustics <http://jcaa.caa-aca.ca>!

Building on last year’s success in bringing the journal online, this year has seen some exciting changes. Effective this year, the journal is now open access, and a streamlined electronic review system has accelerated the review process. The journal continues to publish refereed articles and news items on all aspects of acoustics and vibration. You can find the June issue here <http://jcaa.caa-aca.ca/index.php/jcaa/issue/view/262>.

Do you have a paper to submit? Click here to submit your article using our online submission system: <http://jcaa.caa-aca.ca/index.php/jcaa/author/submit>.

Sincerely,

Frank Russo
President
Canadian Acoustical Association

The Mexican Institute of Acoustics and the Faculty of Architecture (Campus Taxco) of the University of Guerrero Invite You to the 20th Mexican International Congress on Acoustics in Taxco, Guerrero, Mexico 30 September–3 October 2014

The 20th Mexican International Congress on Acoustics will be held in the Convention Center at the Posada de la Mision Hotel in Taxco, Guerrero, Mexico. There is a special rate for the Congress Registrants. Early reservations are strongly recommended (by 15th September). (You may reserve your room through the Organizing Committee at the special rate of 1270.00 MXP, breakfast included. Cancellations after September 15th will be charged with the first night. After this date, the room is subject to availability). More information is available at http://ima.org.mx and http://acustica-ima.blogspot.com.

Further Information
Organizing Committee: IMA Board Chairman: M.Sc. Sergio Beristain; sberista@hotmail.com
P.O. Box 12-1022, Col. Narvarte 03001 Mexico D. F.
TEL. (52-55) 5682-2830, 5682-5525
FAX (52-55) 5523-4742

In Taxco, Gro.: Academic Unit of Design and Architecture
Chair: M.Arch. Isaac Estrada Guevara; isesgue@hotmail.com

2013 Leo Beranek Student Medals for Excellence in Noise Control Awarded

Congratulations Dr. Alan Wall for being awarded the 2013 Leo Beranek Student Medal for Excellence in the Study of Noise Control!

The Leo Beranek Student Medal was established by the Board of Directors of Institute of Noise Control Engineering of the United States of America (INCE/USA) on 2010 October 24 to recognize excellence in the study of noise-control by undergraduate and graduate students at academic institutions in North America that have courses in, or related to, noise-control engineering including practical applications.

Congratulations to these Leo Beranek Student Medal for Excellence in the Study of Noise Control award winners! 🎉
Professor Ephraim Gutmark (left), Alexandra Maddox (middle), Dean Teik C. Lim (right)

Michael D. Krak (left) and John A. Scheick (right)

Dr. Guohua Sun (left) and Dean Teik C. Lim (right)

Dr. Alan Wall (right)
INTER-NOISE 2012 Proceedings

DVD
Price: $75 US
S/H: $2 (US) $5 (Foreign)
STOCK NUMBER: IN12

INTER-NOISE 2012, the 41st International Congress and Exposition on Noise Control Engineering, was held in New York City, USA, from 19-22 August 2012 at the Marriot Marquis in Times Square. The congress theme was Quieting the World’s Cities. The congress was held in conjunction with the American Society of Mechanical Engineers Noise Control and Acoustics Division (ASME NCAD) annual meeting, was sponsored by the International Institute of Noise Control Engineering (I-INCE), and was organized by the United States Institute of Noise Control Engineering (INCE-USA). The Acoustical Society of America (ASA) and SAE International also co-sponsored the event. One thousand and thirteen (1,013) technical presentations and sixty (60) poster presentations were given, along with three plenary presentations. One thousand sixty three (1,063) of the presentations were submitted as written papers that are included on this DVD.

This DVD also contains the proceedings of five additional INTER-NOISE Congresses. These are:

- INTER-NOISE 1995, Newport Beach, California, USA
- INTER-NOISE 1999, Fort Lauderdale, Florida, USA
- INTER-NOISE 2002, Dearborn, Michigan, USA
- INTER-NOISE 2006, Honolulu, Hawaii, USA
- INTER-NOISE 2009, Ottawa, Canada

Written papers for INTER-NOISE 2012 were submitted in twenty four technical theme areas with a total of one hundred and twelve individual technical sessions. Twenty parallel sessions were run over the three day conference. The largest technical themes (several individual sessions had more than 20 papers each) were the Architectural Noise / Building Acoustics (142 papers), Community / Environmental Noise (117 papers), Motor Vehicle Noise, Interior and Exterior (113 papers). However, there was also a strong turn-out in other technical areas such as:

- Active and Passive Noise & Vibration Control (44 papers)
- Aircraft and Space System Noise & Vibration (35 papers)
- City Noise (47 papers)
- Industrial Noise (33 papers)
- Measurement and Signal Processing Techniques (48 papers)
- Inverse Approaches in Vibro-Acoustics (44 papers)
- Noise Control Products (50 papers)
- Noise and Health (65 papers)
- Noise Policy Development, Education, Economics and Implementation (47 papers)
- Numerical and Analytical Techniques (38 papers)
- Soundscape (39 papers)

The 22nd biennial conference of the Acoustical Society of New Zealand will be held at the Novotel Hotel, Cathedral Square, on November 24th and 25th 2014. Given recent events in Christchurch, it is fitting that the conference theme is “Acoustics in a Rebuilding City”.

The technical programme will be enhanced by a number of invited speakers, who will offer insights into other issues that affect acoustics on a daily basis. This includes such topics as legal/planning, and earthquake protection.

You are now invited to submit abstracts. Papers on all aspects of acoustics are welcome.

There will be sessions that focus on:

- Legislation and Planning
- Entertainment conflicts with Living
- Demolition and Construction
- Rebuilding in an Earthquake Zone
- New Zealand research

Papers on these topics are particularly encouraged.

Please submit your abstract of not more than 200 words by 30 June 2014. Submissions should be made electronically to:
Below is a list of international contacts for the advertisers in this issue. The telephone number is followed by the fax number where available. In cases where there are two or more telephone numbers per location, or several locations within a country, a semicolon (;) separates the telephone number(s) from the respective fax number. Advertisers are asked to send updated information by E-mail to INCEUSA@aol.com.
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High performance and cost efficient hand held Analyzer
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• Speech Intelligibility measurement (STI-PA)

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2014 June
Product News

Sound Seal, for Wrapping Noisy Pipes, Valves, and Ductwork

Sound Seal Acoustical Pipe and Duct Lagging is specifically designed for wrapping noisy pipes, valves, and ducts in both indoor and outdoor applications.

Our pipe and duct wrap consists of a 1 lb per sq. ft. or 2 lb per sq. ft. mass-loaded vinyl noise barrier with a reinforced foil facing on one side. The foil facing accepts a matching tape, which facilitates quick and easy installation.

Our Lagging Products Feature:

- High and low temperature applications
- Up to 20 Decibel reduction
- STC ratings to 34
- Accepts matching lag tape
- Easy to cut and install
- Class A flammability rated composite
- Quilted Fiberglass decouplers available
- Plenum Rated

For more info, go to http://www.pipeandduct.com/.

Precision Sound and Vibration Measurements for Predictive Maintenance Applications from Sensidyne

An Engineering Manager from a Massachusetts based manufacturer of airport security systems contacted Sensidyne requesting information about Svantek sound level meters. Their application called for precision sound and vibration measurements as part of investigations into failing baggage-scanning machines used at airports. The scanning machines contain large ring bearings used in the feed-belt transporting suitcases and boxes as part of the security inspection process. Failure of a bearing stops the belts and halts security scanning resulting in costly downtime for the airport.

When bearings begin to wear they produce uncharacteristic noise and vibration levels that, if detected, could allow engineers to perform preventative maintenance. Objective measurements of noise and vibration levels would help them to compare new measurements with the original signatures before shipment to the customer. In addition to accuracy, the solution needed to be portable and easy to use both in the manufacturing facility and in the field.

Sensidyne provided an on-site demonstration of the Svantek SVAN 979 sound level meter showing its capability to measure sound and vibration in the range required by the customer. Confirming that the Svantek SVAN 979 was the ideal solution for their application requirements, the customer purchased the instrument kit including the rotational optical probe accessory used to measure RPM speed of rotating objects. Today the customer is successfully using the SVAN 979 with its 1/1 and 1/3 octave bands and constant percentage bandwidth filters over the range from 1 Hz to 20 kHz. Its narrow band option measures the frequency content using the FFT technique with up to 1600 lines as a constant bandwidth analyzer. For vibration input to the SVAN 979, the customer uses the SV 80 accelerometer.

About the Svantek SVAN 979:

The SVAN 979 is an advanced single channel instrument for acoustic and vibration measurements. It provides high accuracy sound and vibration measurements with a very powerful frequency analysis package including time-domain (WAV) and Audio Events recording to Micro SD card. The SVAN 979 features a high dynamic measurement range with an extremely flat frequency response, and a flexible set of interfaces (USB, Bluetooth, IrDA, RS232 and more). The SVAN 979 includes firmware ready for GPRS and WLAN communication.

Contact Sensidyne to discover how the SVAN 979 can meet the requirements of your application:

Sensidyne, LP
1000 112th Circle North, Suite 100
St. Petersburg, FL 33716
www.sensidyne.com

Case Study: Use of the Nor848 Acoustic Camera on Wind Turbines

The Nor 848 acoustic camera is a powerful tool to investigate noise sources. In realtime you listen to a beamformed audio signal so that you can hear individual sources. Immediately you can identify the strongest noise source in a multisource environment, and you can do the same analysis for single frequencies, 1/3 or 1/1 octave bands or any given frequency range.

This study shows that in addition to documenting noise emission from a...
wind-turbine, the Nor848 can be a useful tool for predictive maintenance. Anomalies in noise emission from the different parts of the turbine will indicate that the given part should be further investigated to avoid later failure or breakdown.


**New Wireless Whole Body Vibration Instrument by CKV**

The WBV 300/500 is a complete wireless solution to measure and analyze driver seat or standing whole body vibration as required by ISO-2631 and EU-directive 2002/44/EG. Measuring using HealthVib® WBV is easy to learn and use.


**Short Courses Offered at Noise-Con 2014**

As part of the 2014 National Conference on Noise Control Engineering (Noise-Con2014), the INCE-USA is pleased to offer three short courses. Registration includes the session, session materials and breaks.

http://www.inceusa.org/nc14/Registration.shtml?utm_source=April+2014+Email&utm_campaign=Newsletters&utm_medium=email

**Pinta Acoustic Recognized with 2013 Construction Excellence Award for Custom Triangle Baffles Installed at ESIF**

MINNEAPOLIS—pinta acoustic, inc. has been presented with the bronze 2013 Construction Excellence Award in the acoustical solutions category. The Ceilings and Interior Systems Construction Association (CISCA) recognized pinta acoustic for the custom willtec® triangle baffles that are installed at the Energy Systems Integration Facility (ESIF). These prestigious awards acknowledge CISCA members who produce the year’s finest examples of interior commercial construction.

When the Energy Department’s National Renewable Energy Laboratory (NREL) in Golden, Colo., designed ESIF, one of its primary goals was to showcase sustainable design and energy efficiency. ESIF’s office wing features open-plan office areas with large windows and a metal ceiling deck, which reflect sound and could make it harder for workers to communicate and concentrate. To extend light reflectancy and reduce noise and echo, the architects selected pinta acoustic’s custom willtec triangle baffles. Without detracting from the décor, these attractive and sound-absorptive triangle baffles make the office areas more productive environments with greater speech intelligibility.

**New generation of sensors combines two technologies (piezoelectric and DC MEMS), which until now have never been packaged simultaneously in a single housing.**

The Dytran 7705A series E.L.F. (Extended Low Frequency) accelerometers combine both a piezoelectric and a variable capacitance MEMS element, combined as a single output, to create the widest frequency response bandwidth in the industry, from DC (0 Hz) to 10 kHz. Unique E.L.F. technology combines the most desirable features of piezoelectric sensors (excellent high frequency response) with those of variable capacitance accelerometers (true DC response), eliminating the need for using two different technologies to cover the bandwidth of interest in an application. Slow rotation speeds in the sub-1Hz range and gear mesh frequencies up to 10 kHz can now be made using the same sensor.

**Typical Applications:**

- Flight testing
- Health & Usage Monitoring Systems (HUMS)
- Machinery monitoring
- Ride quality
- Wind turbine measurements
- Wide range of structural response applications

E.L.F. accelerometers are offered in ranges of 20g, 40g and 200g, and operate on 5-28 VDC power at 7-9 mA of current. Signal/power is handled via a 4-pin M4.5x0.35 radial connector. The lightweight titanium housing weighs just 15 grams, and is hermetically sealed for use in rugged environments, from test structures to outer space. The E.L.F. incorporates a 10-32 tapped mounting hole and a hex base.


**Nicholas Browse Joins Cavanaugh Tocci Associates**

Cavanaugh Tocci Associates, Inc. is pleased to announce that Nicholas Browse has joined the firm as Senior Principal Consultant. Nick brings more than twenty five years of experience running his own successful audiovisual consulting firm, Nicholas Browse & Associates. Over the years, Nick and CTA have associated on numerous
projects - both as independent firms on the same design team, and as a joint venture providing a single point of contact for audio, video, projection and acoustics. Current collaborations include work at Harvard’s Fogg Art Museum and a new General Academic Building at the University of Massachusetts, Boston. Together, the two firms share a common consulting approach to providing timely and practical advice to the ever-expanding audiovisual industry.

Prior to starting his own consulting practice, Nick led the systems integration and installation division of Cramer Video where he oversaw the installation of some of the first audiovisual systems designed by Cavanaugh Tocci Associates. Established in 1985, Nicholas Browse Associates grew into a highly respected consulting practice with many long-term, recurring clients including Harvard University, Partners Healthcare, Quicken Loans, the University of Massachusetts, CVS/Caremark, Fidelity Investments, and the University of New Hampshire. Highlights of Nick’s consulting career include: network management centers across New York and New England for Verizon; distance education facilities for the College of Human Medicine at Michigan State University; and a recital hall and conference center in Lagos, Nigeria.

This noteworthy collaboration melds the expertise of the two firms and signifies CTA’s ongoing commitment to excellence as a premier acoustical, audiovisual and theater consulting firm.

Acoustic Bulletin Website Makeover


Care for Sound Symposium Movies Online

- Watch all presentations and interviews with the speakers

The acoustic environment in healthcare is a serious matter and has an impact. This became clear at the symposium Care for Sound in Lund, Sweden, where six speakers explained the impact of acoustics from different perspectives. You can now via this post, watch all the presentations and interviews with the speakers!

Scandinavia influence and debate

- About educational approach and use of space

The seminar organised by the Education Construction Network was provoked by recent references and discussions in the media around the influence and transfer of educational and school design approaches in recent years from Sweden and Denmark. The debate included where the UK is now and what can be learned.

Comfort and performance rewarded

- 6ENERGY+ rewarded with the Green Building Solution Award 2014

Thermal performance and acoustic comfort was in the spotlight as 6ENERGY+, an innovative net zero energy building in Toulouse (France) was rewarded with the Green Building Solution Award 2014, organized by Construction21. Out of 67 buildings and 120 innovative solutions taking part, the public elected the “6ENERGY+” TABS office building.

40th Annual German Acoustics Congress

- Acoustics & Audiology - Hearing for All

At the end of March the 40th Annual German Congress on Acoustics (DAGA 2014) was held in Oldenburg.

The main theme of the congress was “Hearing for all” and the conference also integrated the German Society for Audiology annual meeting (DGA).

New solutions providing new possibilities....

- A new flexible way to design large spaces!
Siemens PLM Software Launches LMS SCADAS XS, a Powerful, Portable Solution for In-Lab and In-Field Noise and Vibration Testing

Siemens PLM Software has launched its new LMS SCADAS XS, a powerful and portable noise and vibration data acquisition system, which combines the productivity and measurement quality typical of the LMS SCADAS family with the autonomy and flexibility of a pocket-sized solution. The LMS SCADAS XS is specifically designed for easy in-vehicle or in-field measurements, delivering testing productivity and securing data quality.

There is continuous pressure these days to test products in real-life circumstances and against ever stricter deadlines. Noise and vibration testing addresses vital product characteristics in a wide range of industries, including automotive, aerospace, defense, and mechanical machinery. The intuitive new LMS SCADAS XS enables both expert and non-expert users, engineers, and technicians to perform the necessary tests throughout the product lifecycle, from early design up through in-field troubleshooting.

Measuring no more than 170 mm in height, 114 mm in width, and 23 mm in depth, the LMS SCADAS XS literally fits in one’s hand. It records and conditions noise and vibration signals acquired from a variety of sensors and can be used as a standalone recorder, with a tablet over Wi-Fi, or connected directly to a PC through USB. Its battery autonomy and ample on-board storage capacity make the system truly the first personal testing front end on the market, allowing testing engineers to stay unwired and on the go for a full day’s testing.

Despite its compact size, the LMS SCADAS XS offers full-size capabilities. The device is available in a standard six-channel version and an advanced twelve-channel version. In addition to these basic analog input channels (for V/ICP, including TEDS to support typical sensors such as microphones and accelerometers), the LMS SCADAS XS also supports a headset for binaural recording and stereo audio replay, a digital artificial head through dual SPDIF inputs, two analog tacho signals for RPM measurements, vehicle CAN bus signals, and GPS.

A PC is not required with the LMS SCADAS XS. An included tablet application allows engineers to prepare test setups and monitor and validate test data on the go. LMS Smart Scope, a tailor-made application, allows for easy data validation, including audio replay, through a Wi-Fi connection with the LMS SCADAS XS.

The LMS SCADAS XS provides the ideal size, flexibility, and measurement performance for optimal mobility. It allows on-the-go diagnostics and troubleshooting, even by non-expert users who need to perform a fast and reliable measurement. By maximizing efficiency and data availability, the device’s portability and ease of use open up a whole new range of possibilities to engineering teams in noise and vibration testing.

Key Applications:
- Typical noise and vibration testing
- Field diagnostics, mobile measurements and laboratory testing
- Suitable for both expert and non-expert users

Key Benefits:
- Compact, portable solution
- Setup, monitor, and validate on the go
- Use in standalone mode, with a tablet (application included), or with a PC running LMS Test.Lab
- 12+ channels


AFMG Establishes North American Office

Berlin, Germany / Minneapolis, USA—AFMG, known for its leading acoustic simulation and measurement programs EASE, EASERA, and SysTune, announces the formation of the company’s first official office in the United States. Headed by Bruce C. Olson, AFMG Services North America, LLC will be taking responsibility for all inquiries arising in the US and Canada. This step is made to provide direct support and services to customers on the North American continent.

For more information please visit http://afmg.eu.

Please contact AFMG directly for further inquiries: sales@afmg.eu.
Acknowledgments

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Below is a list of congresses and conferences sponsored by International INCE and INCE/USA. A list of all known conferences related to noise can be found by going to the International INCE page on the Internet, www.i-ince.org.

September 7-10, 2014
Noise-Con 2014
2014 National Conference on Noise Control Engineering
Westin Beach Resort & Spa
Fort Lauderdale, Florida
http://inceusa.org/nc14

September 30 - October 3, 2014
20th Mexican International Congress on Acoustics
Convention Center
Posada de la Mision Hotel
Taxco Guerrero, Mexico
http://ima.org.mx

November 16-19, 2014
INTERNoise 2014
2014 International Congress on Noise Control Engineering
Melbourne Convention & Exhibition Centre
Melbourne, Australia

November 24-25, 2014
22nd Biennial Conference of the Acoustical Society of New Zealand
Novotel Hotel, Cathedral Square
Christchurch, New Zealand
http://www.acoustics.org.nz/?q=node/11

April 20-23, 2015
Wind Turbine Noise Conference
2015 International Congress on Wind Turbine Noise
Radisson Blu Hotel
Glasgow, Scotland
http://windturbinenoise.com

August 9-12, 2015
INTERNoise 2015
2015 International Congress on Noise Control Engineering
San Francisco Marriott Marquis
San Francisco, California, USA
www.internoise2015.com
The INCE/USA Page at the Atlas Bookstore

www.atlasbooks.com/marktplc/00726.htm

NOISE-CON 2011 was held jointly with the Transportation Research Board (TRB) ADC40 Committee on Transportation-Related Noise and Vibration on 25-27 July, 2011 at the Marriott Downtown Waterfront Hotel in Portland, Oregon. One hundred forty seven (147) technical presentations were given at the conference and of those, 132 were submitted as written papers that are included on this DVD.

This DVD contains the proceedings of ALL NOISE-CON conferences held since 1996. This includes the years 1996, 1998, 2000, 2001, 2003, 2004, 2005, 2007, 2008, and 2010. Also included are the proceedings of two sound quality symposia, 1998 and 2002. So, including the NOISE-CON 2011 papers, a total of 1621 technical papers are included on this DVD. All papers are in PDF format.

INTER-NOISE 06 Proceedings
This searchable CD-ROM contains the 662 papers presented at INTER-NOISE 06, the 2006 Congress and Exposition on Noise Control Engineering. This, the 35th in a series of international congresses on noise control engineering was held held in Honolulu, Hawaii, USA on December 3-6, 2006. The theme of the congress was “Engineering a Quieter World.”

The technical topics covered at INTER-NOISE 06 included:
- Aircraft and Airport Noise Control
- Community Noise
- Fan noise and aeroacoustics
- Highway, automobile and heavy vehicle noise
- Machinery noise
- Noise policy
- Product noise emissions
- Sound quality.

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Information on listings in the Directory of Noise Control Services is available from the INCE/USA Business Office, 100 East Washington Street, Springfield, IL 62701 Telephone: +1 217 528 9945. e-mail: ibo@inceusa.org.
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