Education and Outreach: I-INCE Publications

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ABSTRACT
One of the objectives of the member societies of the International Institutes of Noise Control Engineering (I-INCE) is the dissemination of useful information on the effects of noise, descriptions of the mechanisms and transmission of noise, and methods of noise control. Publications supported by I-INCE are one of the primary mechanisms for the dissemination of useful information on noise and its control. This paper presents an overview of the I-INCE publications, e.g. the Noise Control Engineering Journal, Noise News International and INCE conference papers. The objectives of these publications, mechanisms of publications and methods of access to these publications are discussed. Strategies for improving the usefulness to I-INCE members of these publications are outlined.

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1. INTRODUCTION

The International Institute of Noise Control Engineering (I-INCE) is a worldwide consortium of professional organizations concerned with the impact of noise, methods of describing noise generation and propagation, and the design and implementation of treatments for the control of noise. One of the principle means of meeting this objective is to develop and dissemination information on noise impact, generation, propagation and control to noise control engineers. One of the objective of I-INCE conferences is to provide a vehicle by which participants can present new information on noise control to others. In addition, there are three I-INCE publications in which information is provided on noise control engineering. These publications are: 1) the Noise Control Engineering Journal (NCEJ), 3) conference papers that are archived online and 3) the Noise News International (NNI) magazine. Because the needs for information vary, each of these three publications serves different purposes. In this paper, descriptions of each of these publications are provided.

2. NCEJ

NCEJ published peer-reviewed papers every other mouth. The first issue of NCEJ appeared in 1973. Malcolm Crocker was the Editor of NCEJ from its beginning until 1994. Pictures of the cover of the first issue and first page of the first paper published in NCEJ are shown in Fig. 1. During this period, NCEJ published papers, case histories, technical notes and editorials. Brief biographical sketches and pictures of authors as well as advertisements were included. Alan Marsh became Editor in 1994. Alan changed the format of NCEJ as reflected in the pictures of the cover and the first page of the first paper published in 1994 shown in Fig. 2.
NCEJ no longer printed advertisements and short biographic sketches of authors. Alan also employed Associate Editors for the first time. David Holger assumed the responsibilities of NCEJ Editor in 1996. In 2005, Courtney Burroughs replaced Dave as Editor. Burroughs felt that the number of papers submissions was not sufficient to justify the use of Associate Editors and, in order to streamline the review process and reduce the submission-to-publication times, he assumed the responsibilities for the review of all of the NCEJ paper submissions. Starting in 2005, NCEJ published only full-length papers, discontinuing the practice publishing technical notes, case histories and editorials. One of the reasons for this change was the difficult of delineating between the various types of submissions in the review process. For example, should a submission rejected for publication as a paper be 'demoted' to publication as a technical note or case history? Criteria for the different types of publication are difficult to develop.

In 2009, publication of NCEJ was changed from paper to electronic where NCEJ papers were available to individual and institutes, e.g. libraries, subscribers online. In addition to the reduction of publication costs, the move to electronic publication was partly in response to libraries that require electronic copies of publications.

A plot of the number of papers published in NCEJ per year is presented in Fig. 3. As seen in Fig. 3, the number of papers published in NCEJ has nearly doubled in the last few years.

One concern of authors is the times between submission and the completion of the review and between the submission to publication. However, because reviews are conducted without compensation by experts in the field who are often busy with daily demands on their time, reviewers are often not their top priority. Thus, time must to allowed for reviewers to review papers. Reviewers are asked to submit reviews within eight weeks of the time they agree to a review paper submission. In addition, reviewers willing to spend the significant time required to review a paper submission are sometimes hard to find and can require several requests before three reviewers are found. In the last nine years, about 10% of the emails sent out to potential reviewers bounce, about 20% of potential reviewers decline the request to review, about 25% of the requests were ignored, leaving about 45% who agree to review the paper. All of this adds to the time required to complete the review process for a paper. The average time between an NCEJ paper submission and the completion of the review process is about four and a half months. Once the review is complete and reviewers’ comments sent to the authors with the request to revise their paper submission in response to reviewers’ comments, the authors are responsible for revising the paper. There is little the Editor can do at this point to reduce the overall time from submission to publication. The average submission to publication time for NCEJ, which includes the review, revisions and publication of the accepted paper, is around 10 months.

Starting in July 2014, the Korean Society of Noise and Vibration Engineering (KSNVE) will be joining INCE/USA in the publication of NCEJ. KSNVE will handle the reviews of paper submitted to NCEJ from the Asia-Pacific region. The Editor for the Asia-Pacific region is Yann Hang Kim. All papers will be submitted to Courtney Burroughs at ncej@inceusa.org, who will handle reviews of paper submitted from the Pan-America and Europe-Africa regions. Paper submitted from the Asia-Pacific region will be forwarded to Yann-Hann Kim at ncej@ksnve.org.

The goal of NCEJ is to have a minimum of 100 paper submissions per year, to publish over 60 papers per year and to publish each issue on time, i.e. within the identified publication dates for the issue. The goals are to be met without sacrificing the quality of the Journal developed over the more than 40 years since its first publication.

There are currently almost 1300 NCEJ papers available to subscribers online at http://ince.publisher.ingentaconnect.com/content/ince. Access to NCEJ papers are given to all members of INCE/USA. For those who would like access to NCEJ and reside outside the USA, but do not want to join INCE/USA, subscriptions to NCEJ are available. For more information, contact ibo@inceusa.org.

NCEJ papers online may be searched by author, words in the paper titles and I-INCE subject classification numbers, and pdf of papers downloaded.

3. Conference Papers

In the past, copies of papers from I-INCE conferences could be difficult to obtain for those who did not attend the conference in which the paper of interest was presented. To address this problem, INCE/USA put all I-INCE conference papers online on the same site as that used for NCEJ. Conference papers from all InterNoise, NoiseCon, SQS and Active conferences are now online. This includes over 20,000 papers that may
be searched by author, words in the paper title and I-INCE subject classification number, and then downloaded.

Currently conference papers are available only to NCEJ subscribers. A proposal has been submitted by Douglas Manvell of Bruel & Kjaer to the I-INCE General Assembly, and thereby all I-INCE member societies, to make conference papers available to all members of I-INCE member societies. This proposal is now under consideration by the I-INCE General Assembly.

In addition to increasing the availability of the over 20,000 conference papers to all members of I-INCE member society, it has been proposed to increase the number of conference papers available online. For example, it has been proposed to include papers from other noise-related conference, such as EuroNoise conferences. This would result in the largest source of information on noise control engineering currently available in the world, which goes a long way to meeting one of the principle goals of I-INCE in the dissemination of information useful to those involved in the assessment, description and control of noise.

4. NNI

The origin of Noise/News International goes back to the founding of the Institute of Noise Control Engineering. In the 1971 meetings leading to the incorporation of INCE, the need for a publications committee to was cited by Leo Beranek. Then in a July 1971 meeting, George and Lew Goodfriend presented a tentative publications plan which included the possibility of publishing a newsletter and an archival journal. George followed through on this plan and Volume 1, No. 1 of NOISE/NEWS was prepared for publication at the beginning of 1972 (January-February issue). George Maling was Editor of the first issue, and he continued to serve as Editor-in-Chief of NOISE/NEWS during its entire publication run.

As noted above the first issue appeared in January 1972. This issue featured a photo of Leo Beranek on the cover, a lead article that "INCE is Incorporated," photos from the ASA Conference on Noise Standards which had been held at Arden House during the period 1971 July 28-30. Also included in this issue was the program for the second Arden House workshop, and a Call for Papers for INTER-NOISE 72. Moving forward, an agreement between the Acoustical Society of America and INCE was signed on 1973 April 11. This three-year agreement provided for cooperation between the two organizations in the holding of meetings and in the publication of periodicals. Under the terms of this agreement, NOISE/NEWS and the journal, NOISE CONTROL ENGINEERING, are jointly sponsored by INCE and ASA.

The early issues of NOISE/NEWS contained many reprints of the Federal Register pertaining to proposed legislation and regulations. This was a period with a lot of regulatory activity and a number of proposals being considered. NOISE/NEWS played a critical role keeping the noise control community informed of what was going on and providing access to the language that was being considered in possible regulations. These early issues were truly newsletters in black and white with a relatively simple format. An example of one of the early issues is shown in Fig. 4. NOISE/NEWS continued to serve as a quarterly publication of INCE-USA until 1993.

In 1993 there was a proposal made by George and Bill Lang to combine the INCE-USA and I-INCE publications. At that time, NOISE/NEWS bookings were falling off. International INCE also had a newsletter. The thought that by combining the two publications, a larger circulation would be possible which could attract more advertisers. In addition the combined publication would better serve the international noise control engineering community. The launch of what is now Noise/News International was controversial and only passed at the INCE-USA Board meeting in Fall 1992 by one vote. International INCE approved the joint publication, and NNI was launched in the spring of 1993. This first issue is shown in Fig. 5.

NNI proved to be very successful in attracting advertisers and in serving the needs of the international community. A new format was developed as the newsletter became a magazine with a wide breadth of information pertinent to the global noise control community. Regular features in NNI included:

- Columns from the I-INCE and INCE-USA presidents
- Calls for papers for the upcoming NOISE-CON and INTER-NOISE conferences
- Detailed information with travel and activities information for each conference
- Feature articles on the latest issues and technology
- Descriptions of one of the I-INCE member organizations
- New product information
There have been many memorable issues of NNI discussing important publications, major international conferences, new regulations and other topics of wide interest. One of most often mentioned is the 1994-1997 Stig Ingemansson series of articles on practical noise control. An example is shown in Figure 6. During the course of its history NNI has often served to enlighten the community, as in the series noted above. It has also provides important news of new initiatives from around the world and ground breaking new developments. It became a critical source of information for many in the field whether they were just beginning or had many years of experience.

Another transition for NNI took place in 2010. In response to decrease advertising revenues and rising printing costs, it seemed prudent to move to move away from hard copies to a digital issue of NNI. Beginning in 2010, NNI became available in Portable Document Format (PDF) only—to be downloaded from the Internet. Back issues were scanned, and an Internet archive created. The result was even larger circulation, more timely delivery, lower production costs and lower advertising rates. There continues to be considerable interest in the back issues. The new ability to add links from the PDF to pages on the Internet made it possible for readers to have quick access to many documents that otherwise could be hard to find.

In 2011 there was yet one more transition, Jim Thompson stepped into the role of Managing Editor of NNI. After almost four decades as Editor-in-Chief of NOISE/NEWS and Noise/News International, George decided that it was time to step away. The entire noise control community owes a major debt to George for his service and leadership in providing information for and about the community of this period.

Under new leadership NNI continues to strive to provide timely and useful information to the global noise control community. Recent website data indicates that there are approximately 20,000 readers of each new issue with large numbers accessing archived issues on a regular basis. Interest in the magazine continues to be strong from authors and advertisers.

5. SUMMARY

In order to increase the dissemination of information useful to the noise control engineering community, I-INCE has developed three publications, each of which serves different objectives. The Noise Control Engineering Journal is a peer-reviewed journal that presents new results from research and development in the assessment, description and control of noise. I-INCE conferences papers, which are not peer-reviewed, are now available online. The Noise News International contains news of interest to the noise control community, included information on upcoming conferences, along with feature articles of general interest to noise control engineers. All three of these publications are available online at http://ince.publisher.ingentaconnect.com/content/ince. NCEJ and conference papers are now available to subscribers. NNI is available free to everyone.

In the future, our goals are to increase the availability of I-INCE publication to I-INCE members, increase the number of papers online, increase the number and quality of papers published in NCEJ and to increase the number of featured articles published in NNI.

6. REFERENCES

Figure 1 - Cover and first page of first issue of NCEJ.
Figure 2 - Cover and first page of first paper in 1994 NCEJ.
Figure 3 - Number of NCEJ papers published per year.
More than 500 Attend INTER-NOISE 84

Shortly after Thanksgiving Day, a severe tropical storm swept out of the Pacific Ocean to batter the Hawaiian Islands. Torrential rains relieved a long period of drought, and most activities were forced indoors. The storm passed, and Monday, December 1, dawned clear and beautiful. The good weather held during INTER-NOISE 84 with only an occasional shower.

The Pacific Ballroom of the Hotel Hale at the Yacht Harbor end of Waikiki Beach was the venue for INTER-NOISE 84. The Opening Plenary Session was preceded by a number of Hawaiian songs. William W. Lang, INTER-NOISE 84 Chairman, opened the session and made brief comments on the future of noise control in the U.S.A. He emphasized the appropriateness of the theme of INTER-NOISE 84: “International Cooperation for Noise Control.” Brief presentations were made by James G. Serbel, President of INCE-USA, which has primary responsibility for the organization of the conference; Yoshio Ikeda, Co-Chairman of INTER-NOISE 84 and head of the Japanese delegation; and the participants. Masafumi Koyama, President of INCE-Japan, then greeted the delegates on behalf of the institution which was hosting the conference.

INTER-NOISE 84 was officially opened by Professor Fritz Ingenbleek, President of International INCE. In his opening address (which will appear in the next issue of NOISE/NEWS), he reviewed the accomplishments of International INCE and the INTER-NOISE series of conferences, and he outlined the five courses of action which may be followed in the pursuit of noise control, namely:
- Regulatory actions.
- Noise control by land-use planning.
- Noise control by barriers.
- Quelling the noise source by design, and
- Noise labeling.

The first INCE-USA Education Award was then presented in memory of John C. Johnson. Professor Jin Tuch opened the award ceremony by noting the many contributions of John C. Johnson to INCE/USA and to the advancement of the education of acousticians and noise control engineers. Nancy S. Timmersman, INCE Vice President, Membership, described the award which is given periodically to honor an outstanding educator who has contributed significantly to the training of future noise control engineers.

The first INCE-USA Education Award was then presented to Professor Robert F. Lambert, University of Minnesota, Minneapolis, Minnesota.

The award ceremony was followed by the first distinguished lecture of INTER-NOISE 84, Professor Juichi Igarashi of the Kobe University of Physical Research, Tokyo, gave an excellent talk in the field of Transportation Noise Control.” Professor Igarashi’s paper is the lead article in the INTER-NOISE 84 proceedings volume, which was edited by George C. Malych, Jr.

The primary session was concluded with a coffee break for all participants in mark the opening of the INTER-NOISE 84 Exhibition. The exhibition area was located in the center of the Pacific Ballroom. As the attendee stepped into the ballroom through the lobby entrance, the exhibit was on all sides. The six meeting rooms which were used for the plenary, technical and poster sessions surrounded the exhibit.

The technical program was arranged such that the session breaks were staggered, allowing ample opportunity for the participants to visit the exhibition booths, or to stroll in the bright sunshine of Waikiki Beach.

At 11:00 on Monday morning, the Technical Program began. This program included fifty-two sessions of lecture-type papers and two poster sessions. The lecture-type papers were arranged in six parallel sessions which were held Monday morning and afternoon, Tuesday morning, and Wednesday morning and afternoon. The poster sessions were held in mid-day on Tuesday and Wednesday.

To provide guidance to participants on the content of the Technical Program, a Special Issue of Noise Control Engineering Journal, edited by Malcolm J. Crocker, was available to conference participants. The Special Issue gave abstracts of all the papers presented at INTER-NOISE 84. In the editorial of this issue, Chairman Lang emphasizes that INTER-NOISE 84 represents a number of firsts. This is the first conference that INCE/USA has organized jointly with an institute in another country; hence, the theme: “International Cooperation.”

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Figure 5- First Issue of Noise/News International
The illustrations in this feature article appeared first in a book published in Swedish by Arbetskyddsfonden, the Swedish Work Environment Fund. The Fund was established by national legislation in Sweden to conduct research and education in the field of work environment improvement, and is jointly operated by Swedish employers and labor unions.

The book was translated into English and disseminated as a guide for workers and employers by the U.S. Department of Labor. It has also been translated into other languages, notably Finnish and Danish, but its overall circulation has been limited. The illustrations are being republished here to give them wider circulation, particularly among noise control engineers.

The formulation of the principles, the choice of examples and the preparation of preliminary sketches was the work of Stig Ingemanson. The original illustrations were prepared by Claes Folkesson.

The principles and practice of noise control are presented in eight sections:

A. Sound behavior
B. Sound from vibrating plates
C. Sound production in air or gases
D. Sound production in flowing liquids
E. Sound propagation indoors
F. Sound propagation in ducts
G. Sound from vibrating machines
H. Sound reduction by enclosure walls.


D2. Large and rapid changes in pressure produce "cavitation" noise
E1. Sound sources should not be placed near corners
E2. Thick, porous layers absorb both high and low frequency sound.

These illustrations should assist engineers in explaining to others the fundamental principles of noise control.—Ed.

Stig Ingemanson is the founder of Sweden’s leading consulting firm in acoustics. He was a lecturer in acoustics for many years at Chalmers University of Technology, Gothenburg, Sweden, and recently received an honorary doctorate from the university. His address is: Stig N.P. Ingemanson, DIN Ingemanson AB, Gullbergs Strandgata 6, Box 276, S-40 124 Gothenburg, Sweden.

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Noise/News International

Figure 6 - Example of Noise Control Series by Stig Ingemanson