

C H R O N I C L E

98TH AES CONVENTION — 25-28.02.1995 — PARIS  
POLISH AES SECTION REPORT

Audio Engineering Society Conventions became traditional world meetings of all scientist, engineers, industry managers, producers, dealers and even fanciers interested in the domain of sound and vision system, equipments, facilities, component, hard — and software computer elements etc. Such meetings take place twice a year: Spring in Europe (denoted with consecutive even numbers), and Fall Convention in the USA (denoted with odd ones).

The latest European Conventions: the 94<sup>th</sup> in Berlin, the 96<sup>th</sup> in Amsterdam, and the 98<sup>th</sup> one in Paris, reported herewith, were marked with participation of several newly organized AES Sections from countries of former Eastern socialist block of states. Among the members to those Sections, the most numerous participation was of the Polish Section. Since the Berlin Convention, the Polish AES Section has organized, for the third time already, inexpensive coach expeditions for their members, mostly student-members, to participate in Conventions. Such participation is highly valuable, especially for young adepts of acoustics, sound engineering and related topics who otherwise would be unable to cover all costs of participation, accommodation, transport etc. In appreciation of those numerous participations and of other initiatives, as well as assessing the whole scientific activity of the Polish Section, the Vice-President for Europe AES Region, Mr Dan Popescu, during the special Convention meeting in Paris, highly estimated its achievements in 1994, calling the Polish Section „the best of all Europe Sections”.

Among Polish participants of the 98<sup>th</sup> AES Convention, held in Paris, at Palais de Congrès, were numerous authors and coauthors who read their papers and took part in discussion during the debates within the scientific Convention program. The debates were grouped in the sixteen sessions: Audio Data Reduction I & II (A & C), Architectural Acoustics I & II (B & D), Electronic Music and Musical Instrument Acoustics (E), Sound Reinforcement I & II (F & H), Audio Electronics (G), Audio Signal Processing I & II (I & K), Transducers I & II (J & L), Measurement (M), Psychoacoustics I & II (N & P), Networks and Interfacing (O).

All the eighty five Convention papers were supported by a preprint. The Polish presentation included the following ones (in brackets — preprint no. and in parentheses — session no.): A. CZYŻEWSKI, B. KOSTEK, S. ZIELIŃSKI, *New Approach to*

*the Synthesis of Organ Pipe Sound* [3957] (E2); B. ŻÓŁTOGÓRSKI, *Inverse Radiation Problem — capabilities and Limitations*, [3981] (J1); D. RUSER, H. RUSER, *An Elementary High Resolution Microphone System for Localization of Sound Source in Air*, [4002] (M1); M. NIEWIAROWICZ, *Directional Properties of sound Sources During Transients*, [4004] (M3); B. KOSTEK, *Statistical versus Artificial Intelligence Based Processing of Subjective Test Results* [4018] (P3); M. KIN, J. RENOWSKI, *The Influence of Spectrum on Perception of Differential Pitch Sensitivity for Short Waves*, [4020] (P5).

Moreover, Polish AES Section members, in particular the young student-members, have taken an active participation in the, so called, workshop sessions. Those were devoted to the following technical aspects: Preservation of and Access to Audio and Video Carriers; New Digital media Developments; Wave Front Sculpture for Sound Reinforcement; Premastering for the New CD Formats; The Interaction of the Visual and Auditory Senses: „How Does One Measure It”; Current Trends of Research in Musical Instruments Acoustics: Musical nad Non-Musical Application; Digital Audio broadcasting.

Apart from the scientific activities, the participants got an enormous quantity of information concerning the most recent audio systems and equipments presented during a large exhibition, accompanying traditionally the Convention. The exhibition was held inside the Convention site, at the Palais de Congrès, on three levels, however, being easy accessible to all participants. more than three hundred enterprises, from all over the world, displayed their best products in richly outfitted demonstration stands, giving a visitor a unique possibility to keep track of the development trends in the whole domain of audio engineering. Broadly disseminated leaflets, prospects, technical data lists, system descriptions, records, even manuals, etc. will provide valuable information and reference source for participants at their professional practice.

Immediate press assessments, which appeared still before closing of the Conventions debates, have stated that the greatest interest of industry representatives concentrated on problems connected with the digital sound processing and the reinforcement systems. The latter ones were often entitled as room acoustics or building acoustics problems, however, only sound reinforcement techniques were treated thereby, without any reference to proper desing, measurement and acoustical correction or adaptation of rooms. At any rate, those were discussed during session debates devoted to Architectural Acoustics.

Generally, the scientific part of the Paris Convention was not so largely filled as e.g. the 94<sup>th</sup> one, held in Berlin. The number of papers was almost halved in comparison to Berlin record. However, may be, it was intended by Paris Convention Committe, which probably dismissed a part of the submmitted papers in order not to exaggerate the numbers of parallel sessions, necessary otherwise. So, the more important is the number of Polish Section presentations, which amounted 7% of the total number papers.

It may be interesting to compare the share of authors' contributions from particular countries. The most numerous were twelve papers from the U.S.A. Next in

number were papers from Germany and from the United Kingdom, ten papers from each country. Nine papers were presented by French authors. Eight ones by Dutch authors. Poland and Russia presented six papers each. Danish authors presented four papers. Finland and Hong-Kong presented three papers each. Two papers came from authors from Greece, Ireland, Portugal and Switzerland. One paper was presented by authors from Australia, Austria, Italy, Japan, Spain and Sweden. Thus, it was a really international contribution to audio engineering scientific progress.

Such yearly repeated contact with the international progress in the audio engineering domain is, without a doubt, a very useful event for the Polish AES Section members and for their entire scientific and professional surrounding. Thus, a continuation of similar contacts in the future seems to be highly desirable. In this context, it has to be added here, that the 100<sup>th</sup> AES Convention, the jubilee one, will be held in Copenhagen, at Bella Center, on May 11–14, next year, 1996.

*Marianna Sankiewicz*

*(Chairman of the Polish AES Section)*

#### **Information about CIB W-51 Acoustics Meeting in Warsaw, 25–27 May 1994**

The Information Council for Building Research Studies and Documentation is an international organization concerned with studies, research and documentation in the building industry. It unites 70 countries. It has over 500 collective and individual members.

Over 70 International Committees and Working Groups operate within CIB. One of them is the W-51 Acoustics Committee. The Committee is headed by Prof. A. Cops and Prof. G. Vermier from the Catholic University in Leuven.

The W-51 Acoustics Committee consists of the representatives of Research Centers, dealing with building acoustics, requiring more in-depth theoretical and experimental examination, are discussed during these meetings. Discussion are held on the chosen scientific issues, study and measurement methods, and the results of studies obtained in the last several years in the various Institutes are analyzed.

Scientific presentations are prepared for the Committee meetings and these are later presented and discussed at the seminar. Later on these papers are prepared — according to the publisher's requirements — for publication in *Applied Acoustics*.

A collective publication is prepared from each seminar, which includes the written and presented papers. This publication includes the papers presented at the meeting of the CIB W-51 Acoustics Committee on May 25–27, 1994 in Warsaw.

The seminar in Warsaw was devoted to two very significant groups of topics, namely:

I. Experimental study and modeling of sound insulation in construction building joints in buildings.

II. Sound absorption, shape and indicator of reference curve, measurement and desing.

A total of 21 papers were announced 11 — in Section I, 10 — in Section II; 18 papers were presented. From which 16 were delivered in the from 16 were delivered in the from of xerox-copied publications the remaining 2 due to research being in progress, were only presented, and will published at a later date in Applied Acoustics. Three papers were not sent in their authors were also absent.

A list of the presented papers, according to the program of the meeting, is given.

Participation in the CIB W-51 Acoustics Committee meeting undoubtedly allowed its participants to confront the progress of studies conducted on similar topics in the various countries, as well as facilitated better planning in the area of building acoustics studies to be carrier out in the forthcoming years.

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#### Presented papers

Theme 1 — JUNCTION DAMPING: modeling, experiments

1. BOSMANS I., MEES., Vermeir G. (Belgium),  
*Structure-borne sound transmission between thin ortotropic plates: analytical solution.*
2. CRAIK R. (England), Osipow A. (Russia),  
*The use elastic interlayers at joints to reduce structure-borne sound transmission.*
3. VILLOT M., Jean P. (France),  
*Structure-borne sound transmission though a pillar-beam-floor system. Case of bulidings constructed on top of covered raliways.*
4. PEDERSEN D.B. (Denmark),  
*Estimation of vibration attenuation trough junctions of building structures.*
5. GERRETSEN E. (The Netherlands),  
*Junction transmission with double-leaf building elements.*

Theme 2 — JUNCTION DAMPING: examples, applications

1. NIGHTINGALE T. (Canada),

*Application of the CEN draft building acoustics prediction model to a lightweight double leaf construction.*

2. MARTIN H.J., MOORLACH M.F.C. (The Netherlands),  
*Sound transmission and junction damping in sheet steel dwellings.*
3. SZUDROWICZ B., IZEWSKA A. (Poland),  
*Simplified evaluation of flanking transmission based on the mean mass and mean area of flanking elements.*
4. PIETRZYK A., KROPP W., KIHLMAN T. (Sweden), *Numerical simulation of low frequency air-borne sound transmission in buildings.*

### Theme 3 — SOUND ABSORPTION: reference artefacts, measurement, design

1. VORLÄNDER M. (Germany),  
*Reverberation room measurements and preparations of round robin tests on the sound absorption coefficient of reference artefacts.*
2. KRISTIANSEN U.R., VIGRAN T.E. (Norway),  
*On the design resonant absorbers.*
3. CHYLA A., CZYŻEWSKI K., NURZYŃSKI J. (Poland),  
*Reverberation time: comparison of measurement results obtained in the laboratory using different methods and instrumentation.*
4. MIROWSKA M. (Poland),  
*Sound absorption of spatial acoustics absorbers, laboratory measurements, repeatability, reproducibility.*

### Theme 4 — SOUND ABSORPTION MEASUREMENT: simulation, experiments, in-situ measurement

1. MEES P., VERMEIR G. (Belgium),  
*Numerical simulation of sound absorption in reverberation rooms.*
2. COPS A., VANHAECHE J., LEPPENS K. (Belgium),  
*Sound absorption in a reverberation room: causes of discrepancies on measurement results.*
3. MOMMERTZ E. (Germany),  
*Angle-dependent in situ measurements of the complex reflection coefficient using a subtraction technique.*
4. MADALIK L. (Estonia),  
*Measurements and computer simulation of sound field of the St. Charles' Church in Tallin.*