

Acoustical Society of America GOLD MEDAL



Jiri Tichy

2010

The Gold Medal is presented in the spring to a member of the Society, without age limitation, for contributions to acoustics. The first Gold Medal was presented in 1954 on the occasion of the Society's Twenty-Fifth Anniversary Celebration and biennially until 1981. It is now an annual award.

PREVIOUS RECIPIENTS

Wallace Waterfall	1954	Lothar W. Cremer	1989
Floyd A. Firestone	1955	Eugen J. Skudrzyk	1990
Harvey Fletcher	1957	Manfred R. Schroeder	1991
Edward C. Wente	1959	Ira J. Hirsh	1992
Georg von Békésy	1961	David T. Blackstock	1993
R. Bruce Lindsay	1963	David M. Green	1994
Hallowell Davis	1965	Kenneth N. Stevens	1995
Vern O. Knudsen	1967	Ira Dyer	1996
Frederick V. Hunt	1969	K. Uno Ingard	1997
Warren P. Mason	1971	Floyd Dunn	1998
Philip M. Morse	1973	Henning E. von Gierke	1999
Leo L. Beranek	1975	Murray Strasberg	2000
Raymond W. B. Stephens	1977	Herman Medwin	2001
Richard H. Bolt	1979	Robert E. Apfel	2002
Harry F. Olson	1981	Tony F. W. Embleton	2002
Isadore Rudnick	1982	Richard H. Lyon	2003
Martin Greenspan	1983	Chester M. McKinney	2004
Robert T. Beyer	1984	Allan D. Pierce	2005
Laurence Batchelder	1985	James E. West	2006
James L. Flanagan	1986	Katherine S. Harris	2007
Cyril M. Harris	1987	Patricia K. Kuhl	2008
Arthur H. Benade	1988	Thomas D. Rossing	2009
Richard K. Cook	1988		



CITATION FOR JIRI TICHY

. . . for contributions to acoustical intensity measurement, active noise control, education in acoustics, and for service to the Society

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Jiri Tichy was born in the former Republic of Czechoslovakia. He studied electrical engineering and physics, received a doctorate in Technical Sciences (DSc) from the Czech Technical University in Prague in 1952, and was awarded the Diploma Habil in 1965. Later, he was appointed Associate Professor of Physics in the Department of Physics at the Czech Technical University. Early on he was interested in acoustics and published many papers on acoustics topics.

Jiri was acquainted with two American acousticians: Lawrence Batchelder and Leo Beranek who helped him to immigrate to the United States in 1968. He landed at the Pennsylvania State University, teaching architectural acoustics in the Department of Architectural Engineering and the Acoustics Graduate Program. His interaction with the large Penn State acoustics community, spread over six academic departments, and the Applied Research Laboratory allowed him to expand his professional work in acoustics. He was promoted to full professor in 1972 and was transferred to the Graduate Program in Acoustics where he was appointed the chairman of the Program. That program, which was initially an intercollege graduate program, was expanded later to become a full-fledged graduate department in the College of Engineering. It is the only program in the United States that awards M.S. and Ph.D. degrees in acoustics. Jiri served as the Program Head until his retirement in 1997, serving for 25 years.

Jiri's research expertise was primarily in audio engineering, noise, acoustic intensity, and active noise control. He is a pioneer in the measurement of acoustic intensity techniques, and has written seminal papers on the topic. These include "Measurement of the Complex Acoustic Intensity and the Acoustic Energy Density," with G. Elko in *Proceedings of Inter-Noise 84*, and "Instantaneous and Time-Averaged Energy Transfer in Acoustic Fields," with J. Mann and A. Romano in the *Journal of the Acoustical Society of America (JASA)* in 1987. He presented a Tutorial Lecture on this subject at the 115th meeting of the Acoustical Society of America (ASA) and delivered keynote speeches at the International Seminar on Noise Control, Rio de Janeiro, Brazil in 1989 and the Acoustical Society of Japan meeting in 1997.

Jiri Tichy's pioneering contributions in active noise control include the use of feed-forward control in signal processing techniques for the control of noise from many sources, within enclosures, rooms, halls, and ducts. Two of his seminal contributions are "Global Attenuation of Broadband Noise Fields Using Energy Density Control," with Y. C. Park and S. D. Sommerfeldt in *JASA* in 1997, and "Narrowband and Broadband Active Control in an Enclosure Using the Acoustic Energy Density," with J. W. Parkins and S. D. Sommerfeldt in *JASA* in 2000. He delivered keynote speeches on the subject at the tenth Brazilian Conference of Mechanical Engineers (1989), the Acoustical Society of Korea meeting in 1991, Acoustical Congress of Chile, as well as *Internoise '95* and *Internoise '01*. These keynote speeches delivered at international meetings indicate the remarkable reputation and stature Jiri holds in acoustics in the national and international arenas.

Jiri has been a member of ASA since he came to the United States. He has devoted a major part of his entire professional society activities to ASA. He is a Fellow of the Society and has served in many positions. These include Chair of the Technical Committee on Noise, member of the Technical Council, Technical Program Chair for the ASA meeting in State College (1997), and Co-organizer and Co-chair of the ASA/EAA Meeting in Berlin (1999). He served very effectively as Vice-President of ASA (1992) and as its President (1993). He also served on various committees, such as publication policy, education, and medals and awards.

He has served as President of the Institute of Noise Control Engineering (INCE) (1986), and its Board of Governors (78-83), General Chair of *Noise-Con '87*, and '97, and General Chair of *ACTIVE '95* and '97. He is also active in the Audio Engineering Society and is an Honorary Member of the Czech Acoustical Society. Such activities involving national and international societies point to a highly respected and acclaimed scientist and leader in acoustics.

Jiri Tichy has dedicated his life to education in acoustics. He has nurtured the Acoustics Graduate Program at Penn State since 1972. During those years, graduate enrollment increased from 30 to over 100 graduate students. He established a Continuing Education Program for industry, and a Certificate Program in Acoustics. He also mentored 28 M.S. and Ph.D. candidates in acoustics throughout his tenure at Penn State.

Jiri and his wife Dagmar, who passed away in 2003, were married in Prague in 1955. They had one daughter who is currently the head of the Oncology and Hematology Department at the Toledo Children's Hospital, Ohio. Jiri and his present wife, Iva, split their time between Toledo and Prague.

In conclusion, I am very happy that the Society has recognized Jiri's many accomplishments by awarding him the prestigious Gold Medal

SABIH I. HAYEK