A Tribute to Dr. Tamami Kusuda (1925-2003)

Photo courtesy of NIST

Through a negligent, tragic and criminal act of a drunken hit-and-run driver on 17 October 2003, Tamami “Tom” Kusuda was killed while walking across Frederick Road from the Shady Grove Metro Station in Rockville, Maryland. As our sincere condolences go out to his family and close friends, we also pause to dedicate this News issue to his life and to recall his meritorious works over his professional career.

Dr. Kusuda was born in Seattle to Japanese parents and raised in Japan. He graduated from the University of Tokyo in 1947 and returned to live in Seattle in 1950. He received a master's degree in mechanical engineering at the University of Washington and, in 1955,

a doctorate in mechanical engineering from the University of Minnesota. That same year (1955), he joined ASRE, the predecessor organization to ASHRAE. As an ASHRAE member, Dr. Kusuda served on TC 4.7 (Energy Calculations), the Standards Committee, the Honors and Awards Committee, the International Activities Committee, the Research and Technical Committee, the Program Committee, TC 1.5 (Computer Applications), TC 4.2 (Weather Information), and technical committees and task groups on indoor calculations, energy requirements, survival shelters, heat transfer and psychrometrics. He received the Wolverine-ASHRAE Diamond Key Award, given for the best paper, in 1957, the Distinguished Service Award and the Crosby Field Award, given for the best paper presented at an ASHRAE meeting, in 1976. That same year he was elevated to the grade of Fellow. Later, he became a Life Member of ASHRAE and received the Louise and Bill Holladay Distinguished Fellow Award in 1987.

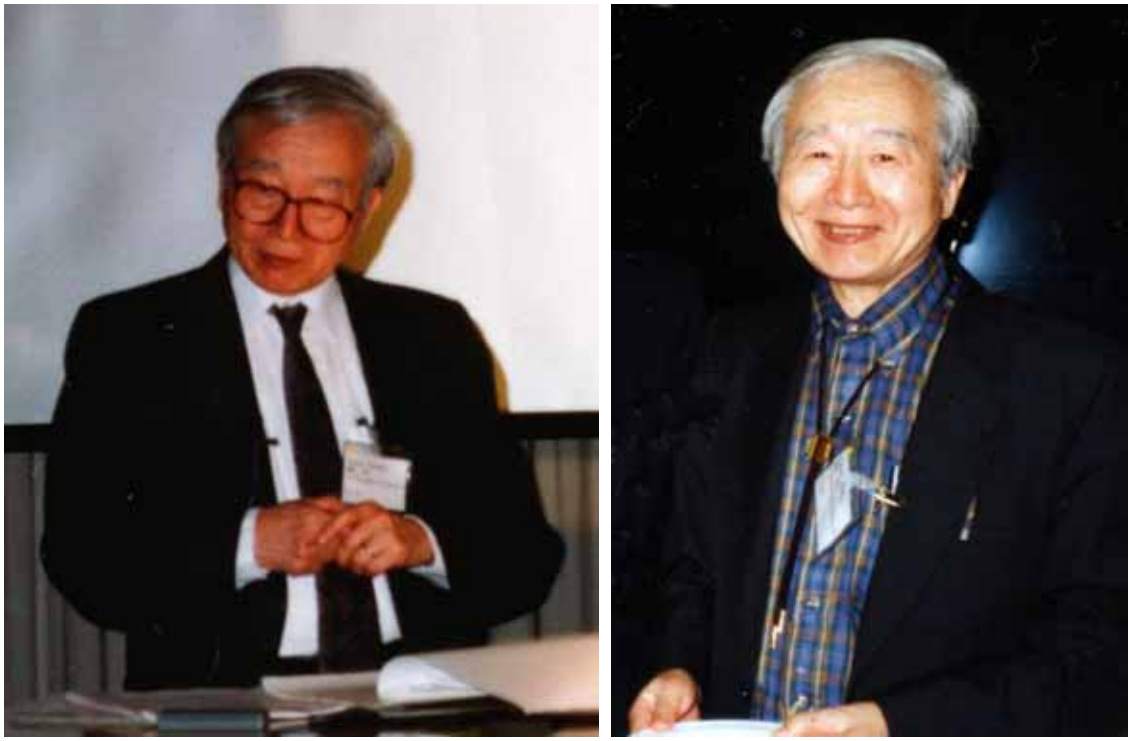
Dr. Kusuda's professional career began as a staff engineer at the Worthington Air-Conditioning Company, New Jersey, during l955-1961, where he was engaged in the development of advanced heat pumps. In 1961, Dr. Kusuda joined the Center for Building Technology at NBS (now NIST). From then through the 1970s, his research laid the groundwork for thermal simulation methods and software to follow – notably his NBSLD program, which became the industry's entry point for newer generation software, like BLAST, DOE-2 and EnergyPlus, that are used throughout the industry and the design professions today. Dr. Kusuda retired from NIST in l986 as Chief of the Building Physics Division. While at NBS, he received the Silver (1972) and Gold (1980) medals of the U.S. Department of Commerce for his contribution to building energy analysis. Dr. Kusuda also taught in the department of civil, mechanical and environmental engineering at George Washington University, and he published over 100 technical papers in the area of building environmental design and energy conservation.

After retirement, Dr. Kusuda was a consultant to the Japan Technology Program (JTP) in the Technology Administration of the U.S. Department of Commerce. In this role, he assisted the director of the JTP in carrying out the mandates of the Japanese Technical Literature Act of l986 to improve the availability of Japanese science and engineering literature in the United States. He was involved in all phases of these activities from the program's inception in l987. Information thus obtained was placed into the databases at NTIS (National Technical Information Service) and the various databases of JICST (Japan Information Center for Science and Technology.) Some of the noteworthy articles were translated and published through the *Japanese Technical Literature Bulletin*, a quarterly publication of which Dr. Kusuda was the editor.

Outside of his professional ties with NBS, ASHRAE, and JICST, Dr. Kusuda also committed himself to involvements with APEC (Automated Procedures for Engineering Consultants), IBPSA, and the formation of at least four international symposia (Gaithersburg, Banff, Paris, and Tokyo) on the use of computers for environmental engineering related to buildings. Most of the Charter members who hatched the idea of IBPSA in 1985 were among the participants of the well-known Gaitherburg conference in 1970, "***Use of computers for environmental engineering related to buildings***", the proceedings of which still sell for around US$99.95 (used) over the internet. The

conference proceedings were a hallmark publication that many consider to be the impetus for the beginnings of IBPSA.

Dr Kusuda's creative works did not stop at retirement. IBPSA awarded him with the **Distinguished Service Award** in 1993 for his lifelong contributions to the field of simulation. He was a featured speaker at the Pan Pacific Symposium on Building and Urban Environmental Conditioning in the Asian District held at Nagoya University in 1995. He was also a keynote speaker at IBPSA's Building Simulation-1999 conference in Kyoto. His work continued into the 21st century; to wit, Kusuda, T., (2001), "Building environment simulation before desk top computers in the USA through a personal memory", ***Energy and Buildings***, Vol. 33, pp 291-302. To see his work come to an end is a big disappointment for all of us. Let me say on behalf of IBPSA, our colleagues and friends that we will surely miss the presence of Tom Kusuda at our conference gatherings. He always had valuable and noteworthy contributions to make and a friendly smile to go along with them. Truly, we will always regard him as an outstanding pioneer in the use of computer methods for analysis, simulation and design for energy efficiency in buildings.



Dr. Tamami Kusuda in Nagoya 1995 (photo courtesy of Dr. Nobuo Nakahara)

Dr. Kusuda with IBPSA President, Jeff Spitler at BS'99 in Kyoto
(photo courtesy of Dr. Jeffrey Spitler)