

## Professor Yoshiro Katto on his 65th birthday



PROFESSOR Yoshiro Katto, who was born on 3 September 1924 in Nara city, Japan, celebrates his 65th birthday this month. We wish on this occasion to applaud his contributions to the field of heat transfer and express our felicitations.

Professor Katto attended the University of Tokyo, where he received his B.S. degree in mechanical engineering in 1946. After graduation, he worked first at the Institute of Science and Technology of the University of Tokyo and then moved to the National Aerospace Laboratory. In 1960, he received his D.Eng. degree for a thesis entitled "Some Fundamental Natures of Resonant Surge" from the University of Tokyo, and in 1963, joined the University of Tokyo as a professor of mechanical engineering. After about 23 years of academic life he retired from the University of Tokyo in 1985 and was appointed as professor emeritus. Since 1985, he has been continuing his scientific activities at Nihon University as a professor.

From 1946 to 1961, he studied various important problems in the wide field of thermal engineering, mechanical vibrations and lubrications. The famous pioneering paper entitled "Theoretical Contributions to the Study of Gas-lubricated Journal Bearings", which was co-authored with Prof. S. Soda and published in 1961 in *Journal of Basic Engineering, ASME*, is one of his early notable works. For this work he received one of the best paper awards in 1963 by the JSME.

In 1962, he started his research on heat transfer at the University of Tokyo. His work involved boiling, thermal radiation, natural convection in porous media, critical two-phase flow and thermal oscillations of a gas-column in a tube. He has especially been absorbed in the analysis of critical heat flux in pool as well as forced convection boiling, and has published a number of papers on critical heat flux. He has thus succeeded in deriving the general correlation of the critical heat flux known as Katto's correlation. For these outstanding contributions, he again received the JSME best paper award in 1979, and won a prize at the ASME–JSME Thermal Engineering Joint Conference in 1983.

Professor Katto has authored or co-authored about 150 journal and conference papers in the area of heat transfer and other fields of engineering. He has written three books on heat conduction, thermodynamics and heat transfer. Among them is the heat transfer textbook *Dennetsu Gairon* (in Japanese) which has been a best-seller as a guiding book on heat transfer for Japanese researchers, engineers and students. His educational contribution to the development of Japanese heat transfer research should not go unnoticed. He has also contributed review articles or chapters to many handbooks and books on heat transfer.

Professor Katto has been a very active member of the JSME and other Japanese scientific societies. He successfully filled the important posts of president of the JSME and president of the Heat Transfer Society

of Japan, and for many years, he was a director of the Japan Society for Aeronautical and Space Sciences as well as the Gas Turbine Society of Japan. Since 1987, he has been a member of the Engineering Academy of Japan. He has also played an important role in promoting Japanese research in science and engineering from the national point of view as a member of government committees. Additionally, he has contributed to the international heat transfer community as an editor or a member of the editorial board of several international journals including the *International Journal of Heat and Mass Transfer* and the *Journal of Multiphase Flow* and as a representative or a general secretary of several international conferences. He is now the delegate from Japan to the Assembly for International Heat Transfer Conference. For these eminent contributions to the field of science and technology, he won a commendation as a distinguished scientist by Tokyo Metropoly in 1983.

Professor Katto's work reflects his philosophy of life and is based on his deep and wide knowledge of natural and cultural sciences. He is a person of truly

gentle and kind character, and is known as an outstanding educator. He has supervised about 60 doctoral or master's theses, and over 120 students have graduated from his laboratory. Each of his graduates plays an active part in Japanese academic circles or industry.

Professor Katto is a devoted husband, father and grandfather. He is blessed in his good family. His wife, Sachiko, is a polite and cheerful lady, and everyone who meets her is impressed by her hearty warmth. Recently, improving their spare time, Professor and Mrs Katto enjoy hiking on the hills or the mountains in the suburbs of Tokyo and coming in contact with natural beauties.

On behalf of Professor Katto's students, his colleagues and friends all over the world, we would like to wish him many happy returns and continued success.

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