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Tribute to Professor Nobuhide Kasagi 笠木 伸英



Professor Kasagi on his admission as an International Fellow of the Royal Academy of Engineering, London, 2007.

It was with deep shock and profound regret that the editors and publisher of the IJHFF learned of Professor Nobuhide Kasagi's death following a prolonged illness, on July 29th, 2015 at the early age of 68.

It had been in 1993 that this journal concluded that the evergrowing numbers of manuscripts from eastern Asia merited the addition of a further Editor-in-Chief and that the new editor should ideally be chosen from that region too. By then Professor Kasagi's extensive published work on fundamental aspects of turbulent mixing and heat transport in wall shear flows had established him, internationally, as a leading contributor to turbulent convection. Moreover his contributions spanned both experimental and computational research. These accomplishments, together with his excellent command of English, made him the ideal choice as the new editor; and it was the Journal's very good fortune that he accepted the invitation to serve. He became an Editor-in-Chief at the start of 1994, a role he discharged with exemplary thoroughness for 19 years. Indeed, he made a significant change to the Journal's appearance from the very start of his tenure for he provided the photograph taken in his laboratory of a turbulent boundary layer that thenceforth has been reproduced on the front cover of every issue.

Kasagi's university education had been in the Mechanical Engineering Department of the University of Tokyo where, on completion of his doctorate in 1976, he was immediately appointed as a faculty member. Except for a career-shaping sabbatical leave spent at Stanford University in 1980–81 he remained at the University of Tokyo throughout his academic career, becoming Professor of Thermal & Fluids Engineering in 1990 and subsequently serving two terms as Department Chairman. While he later served as Vice Dean of Engineering and member of the University Council, his main passions were in applying his research insight and exceptional organizational skills to the transfer of newly acquired research discoveries to the fluid mechanics and heat transfer communities.

He was successively elected to the roles of president of the Japanese societies of Fluid Mechanics (1987) and Computational Fluid Mechanics (2000). He chaired the JSME Thermal Energy Division in 2002–03 before becoming Vice-President of the Heat Transfer Society of Japan from 2003–05. His fine performance in these roles led to his being chosen in 2005 as President Elect of JSME and to his appointment as President of JSME the following year. Finally, we note that in 2010 he became the Japanese Government's representative and vice-chair of the OECD's Science & Technology Committee.



Meeting of IJHFF Editorial Advisory Board at TSFP 5, Munich 2007. From left: Nobu Kasagi, Hector Iacovides, Suad Jakirlić, Shinnosuke Obi, Haecheon Choi, Brian Launder, Neil Sandham, Jean-Paul Bonnet, Desirée de Myer (Publishing Editor), Thomas Gatski, Karen Flack, Cameron Tropea, John Eaton, Yasu Nagano and Kemo Hanjalić.

Yet, his contributions to the fluids and heat-transfer communities were not only, or even principally, focused at the national level. A hallmark of Kasagi's professional life was his deeply ingrained spirit of *international* collaboration, first signalled by his Stanford sabbatical and firmly re-emphasized, while President of the JSME, in his keynote address in Brussels to the 2007 International Congress of Mechanical Engineering Societies: "JSME's challenge toward relationship building".



In 1992 he had been invited to serve on the organizing and paperselection committees of the 9th Turbulent Shear Flow Symposium that was to be held in Kyoto the following year. That was the only occasion that that conference series was held outside of Europe and North America. (Indeed his stellar contributions to that meeting provided further impetus to his being invited to become an Editor-in-Chief of the IIHFF.) When that conference series drew to a close in 1997 it was he who led the creation of a follow-on series Turbulence & Shear Flow Phenomena (TSFP) that is now established as providing the premier conference series bridging fundamental and applied turbulence research. He also became, from 2004, an organizing committee member for the series of conferences Transport Phenomena in Micro & Nano Devices and. from 2005. co-chair of the series Heat Transfer & Fluid Flow in Microscale. His other major international roles included, from 2009, the presidency of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics & Thermodynamics and, from 2010, the vice-presidency of the Assembly for International Heat Transfer Conferences. In this last position, in what was to be his final role as conference organizer, he masterminded the 15th International Heat Transfer Conference in Kyoto in August 2014.

In the wake of these outstanding contributions it is unsurprising, indeed manifestly fitting, that Professor Kasagi should have been the recipient of numerous national and international honours. We select from many others for special note that: in 2002 he was admitted to the Engineering Academy of Japan; in 2003 he was elected a Fellow of the Royal Swedish Academy of Sciences; and in 2007 an International Fellow of the UK's Royal Academy of Engineering. Besides admission to these national academies, in 2010 he was the inaugural recipient of the William Begell Medal and Honorarium, awarded every four years for 'excellence in thermal science and engineering', and in 2012 the winner of the Luikov Medal for 'outstanding contributions to the science and art of heat and mass transfer and for activities in international scientific cooperation'.

Even following his mandatory retirement from the University of Tokyo in 2012, as an emeritus professor he continued to serve the University and many academic enterprises while, in addition, he took up the position of Deputy Director and Principal Fellow of the Center of Research Development Strategy of the Japan Science & Technology Agency.



To close on a personal note, for those privileged to know Professor Kasagi closely, both within IJHFF and without, he was much more than an outstanding academic – he was a very good friend! Nobu always brought the qualities of collegiality, reliability, loyalty, and understanding to his interactions with us, invariably sprinkled with a generous measure of good humour. Finally, this tribute would be incomplete without mention of Nobu's wife, Hiroko, who tirelessly supported him in his ceremonial roles with her effortless charm. To her and to their two daughters we express our deepest sympathy at their loss coupled with the hope that in the fullness of time their sorrow be replaced by immense pride at Nobu's outstanding contributions and achievements.

> Former Editors-in-Chief of IJHFF Thomas Gatski Brian Launder Frank Schmidt

> > Editors-in-Chief, IJHFF Suad Jakirlic Andrew Pollard

> > > Publisher, IJHFF Keith Lambert