

## Professor Raymond Viskanta on his 60th birthday



PROFESSOR Raymond Viskanta celebrates his 60th birthday this month, and it is with great pleasure that his colleagues acknowledge his many contributions to the field of heat transfer.

Raymond Viskanta was born on 16 July 1931 in Marijampole, Lithuania. As the front lines of the Soviet-German conflict approached his family's home, his parents left Lithuania in the summer of 1944 and, after almost six months of intermittent travel across Germany, settled near the city of Nienburg. Shortly after World War II, his family was moved to displaced persons camps located first in Uchte and later in Diepholz, West Germany. The family immigrated to the United States in October 1949, when a farmer near Stockbridge, Michigan, guaranteed employment to his father and family housing for one year.

In February 1950, Raymond Viskanta left the farm and moved to Chicago, Illinois, where he found employment in a factory and attended Englewood Evening High School. After receiving his high school diploma in 1951, he attended the Wilson Junior College, taking courses at night and working during the day. In 1953 he enrolled as a full time student at the University of Illinois-Navy Pier in Chicago, and after one year transferred to the main campus of the university. He received his B.S.M.E. degree with high honors from the University of Illinois in June 1955

and started his graduate work at Purdue University that autumn. He majored in heat transfer and was awarded the M.S.M.E. degree in August 1956.

After graduating from Purdue, he accepted employment at Argonne National Laboratory as an assistant mechanical engineer. During the next two years he conducted research related to boiling, two-phase flow, and nuclear reactor safety, while taking graduate level courses in the evening at Illinois Institute of Technology. After receiving a U.S. Atomic Energy Commission Fellowship, he returned to Purdue University to work on his Ph.D. degree. He completed his doctoral research *in absentia* at Argonne and received the Ph.D. degree from Purdue in August 1960. From 1960 to 1962 he was associate mechanical engineer at Argonne National Laboratory.

In 1962 Dr Viskanta joined the Purdue University faculty as an Associate Professor of Mechanical Engineering and was promoted to Professor of Mechanical Engineering in 1966. During the 1968-1969 academic year he was the Visiting Springer Professor of Mechanical Engineering at the University of California-Berkeley. He has also been a Guest Professor at the Technical University of Munich (1976), a Visiting Professor at the Tokyo Institute of Technology (1983) and a Guest Professor at the University of Karlsruhe (summers of 1987 and 1988). In 1986 he was named to his present position as the W. F. M.

Goss Distinguished Professor of Engineering at Purdue University.

During the past 30 years, Professor Viskanta's research has encompassed a wide range of topics in convection and radiation heat transfer, and he has done much to maintain Purdue's position as a leader in the field. A distinguishing feature of his research has been its impact on both the science and practice of heat transfer. This duality is manifested in many areas, but perhaps none more so than in the field of radiation transfer. Beginning in the 1960s with seminal contributions to the understanding and analysis of radiation transfer in participating media, he has consistently contributed to extending the frontiers of this discipline and to delineating interactions with other modes of heat transfer. In addition he has pioneered applications to such diverse fields as air and water pollution, remote sensing, glass melting, combustion, and solar energy collection. The intensity of his involvement with radiation transfer has been nearly matched by his work on natural convection and solid/liquid phase change. In natural convection, he has considered virtually every facet of the subject including instabilities, internal and external flows, double-diffusive effects, and interactions with other heat transfer modes. Since its inception as a viable energy storage technology, Professor Viskanta has made many important contributions to the understanding of solid/liquid phase change behavior and has more recently expanded his efforts to include solidification in metallic systems. In the course of his research he has mentored approximately 50 doctoral and 40 master's students and has published more than 300 refereed papers.

Professor Viskanta has contributed extensively to the dissemination of technical information. He has served as a member of the National Heat Transfer Conference Coordinating Committee of ASME's Heat Transfer Division and the Thermophysics Technical Committee of AIAA. He was also associate technical editor (1981–1987) of the ASME *Journal of Heat Transfer* and currently serves as its technical editor. He has been an editor of *Experimental Heat Transfer*

and is a member of the honorary advisory boards of *International Journal of Heat and Mass Transfer* and *International Communications in Heat and Mass Transfer*. He is also a member of the editorial advisory boards of the AIAA *Journal of Thermophysics and Heat Transfer* and the *Annual Review of Numerical Fluid Mechanics and Heat Transfer*. In addition, he is a member of the Scientific Council of the International Centre for Heat and Mass Transfer, Belgrade, Yugoslavia.

Professor Viskanta has been widely recognized for his professional accomplishments. In particular, he has received the ASME Heat Transfer Memorial Award (1976), the AIAA Thermophysics Award (1979), the ASEE Senior Research Award (1984), Purdue University's Sigma Xi Research Award (1985), the ASME/AIChE Max Jakob Memorial Award (1986), an ASME Heat Transfer Best Paper Award (1986), the ASME Melville Medal (1988), and the first Nusselt–Reynolds prize (1991). He is a fellow of ASME (1976) and AIAA (1988). In 1987 he was elected a member of the National Academy of Engineering. In addition he has received the U.S. Senior Scientist Award from the Alexander von Humboldt Foundation (1975) and a Fellowship from the Japan Society for the Promotion of Science (1983).

To Professor Viskanta's colleagues outside Purdue, he is known as an innovative, dedicated and tireless scholar. These perceptions are shared by his students and colleagues at Purdue, who, on a daily basis, also find him to be a kind, thoughtful and caring human being. His students, colleagues and friends throughout the world join with the editors of this journal to wish him many more years of happiness, good health and professional achievement.

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