

Professor Raymond Viskanta

Foreign Member of the Lithuanian Academy of Sciences since 1990

Raymond Viskanta is W.F.M. Goss Distinguished Professor of Engineering at Purdue University. His field of study encompasses a range of topics in convection and radiation heat transfer.

Raymond Viskanta was born on 16 July 1931 in Marijampole, Lithuania. His parents left Lithuania in the summer of 1944 and after intermittent travel across Germany, settled in displaced persons camps located in West Germany. The family immigrated to the United States in 1949. Dr. Raymond Viskanta received his formal education in mechanical engineering, and earned his B.S. in Mechanical Engineering degree from University of Illinois in 1955 and M.S.M.E. degree from Purdue University in 1956. During the next two years he was employed at Argonne National Laboratory where he conducted boiling, two-phase flow and nuclear reactor safety related research. He completed his doctoral research in absentia at Argonne and received the Ph.D. from Purdue in 1960. From 1960 to 1962 he was an associate mechanical engineer at Argonne. In 1962, Dr. Viskanta joined the faculty of Purdue University as an Associate Professor of Mechanical Engineering. He was promoted to Professor of Mechanical Engineering in 1966.

During the 1968-1969 academic year he was a Visiting and Springer Professor of Mechanical Engineering at the University of California-Berkeley. He was a Guest Professor at the Technical University of Munich (January-August 1976, May-July 1977, and May-August 1986), Visiting Professor at Tokyo Institute of Technology (May-July 1983) and a Guest Professor at the University of Karlsruhe (May-June 1987 and JuneJuly 1988). In 1986 he was named W.F.M. Goss Distinguished Professor of Engineering.

Professor Viskanta teaches at the undergraduate and graduate levels in the area of heat transfer and conducts research in thermal sciences, heat, mass and radiative transfer. His current research interests include heat transfer in combustion systems, melting and solidification of materials, transport in porous media, buoyancy driven convection flow and heat transfer, heat transfer related to materials processing and radiative transfer in participating media.

Most of Professor Viskanta's research has been carried jointly with students. He has guided the work of 64 doctoral, 48 master students, and 39 postgraduate researchers. He has authored over 540 refereed papers published in archival journals and in proceedings of symposia volumes. He has also prepared numerous invited stat-of-the-art reviews in the areas of his expertise. He presented about 200 keynote papers and invited lectures at national and international conferences, universities and research institutions around the world.

Professor Viskanta has been active in professional societies, particularly the American Society of Mechanical Engineers (ASME). He served as a member of the National Heat Transfer Conference Coordinating Committee, the Max Jakob Board of Awards of the Heat Transfer Division, and the Thermophysics Technical Committee of AIAA. He was an associate editor of the Journal of Quantitative Spectroscopy and Radiative Transfer (1996-1972), an associate technical editor of the ASME Journal of Heat Transfer (1981-1987), editor of Experimental Heat Transfer (1987-1990, technical editor of ASME Journal of Heat Transfer (1990-1995), and Associate editor of Applied Mechanical Reviews (1990-1998). He is a member of the advisory board for several international journals in heat transfer and thermal sciences.

His professional accomplishments have earned recognition of many times: ASME Heat Transfer Memorial Award (1976); the AIAA Thermophysics Award (1979); American Society for Engineering Education (ASEE) Senior Research Award (1984); ASME/AIChE Max Jakob Memorial Award (1986); ASME Heat Transfer Best paper Award (1986); ASME Melville Medal (1988); Nusselt-Reynolds Prize of the Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics (1991); JSME Thermal Engineering Award for International Activity (1994). He was named a Fellow of ASME (1976), a fellow of AIAA (1988), and a Distinguished Engineering Alumnus of University of Illinois (1984). In 1975 Professor Viskanta received the U.S. Senior Scientist Award from the Alexander von Humboldt Foundation, and in 1983 he was awarded a Fellowship from the Japan Society for the Promotion of Science. He was presented the Stodola Medal by the Swiss Federal Institute of Technology-Zurich, 2007. He was elected member of the U.S. National Academy of Engineering in 1987 and in 1990 as a foreign member of the Lithuanian Academy of Sciences. He was awarded an Honorary Doctor of Engineering Degree (Doctor honoris causa) from the Technical University of Munich in 1994 and an Honorary Doctor of Engineering Degree from Purdue University in 2007. Professor R. Viskanta awarded the 2016 Elsevier Poynting Award on Radiative Transfer.