BRIEF PROFESSIONAL RESUMÉ
of
RAYMOND VISKANTA

Title: W.F.M. Goss Distinguished Professor of Engineering
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Education: BSME, University of Illinois, 1955
MSME, Purdue University, 1956
PhD, Purdue University, 1960

Professional Experience (partial listing)

Assistant Mechanical Engineer, Argonne National Laboratory, Argonne, Illinois, 1956-58
Student Research Associate, Argonne National Laboratory, Argonne, Illinois, 1959-60
Associate Mechanical Engineer, Argonne National Laboratory, Argonne, Illinois, 1960-62
Associate Professor of Mechanical Engineering, Purdue University, 1966-1966
Visiting and Springer Professor of Mechanical Engineering, University of California, Berkeley, 1968-69
Guest Professor, Technical University of Munich, Federal Republic of Germany, 1976-77, 1986
Visiting Professor, Tokyo Institute of Technology, Tokyo, Japan, 1983
W.F.M. Goss Distinguished Professor of Engineering, Purdue University, 1986-Present

Honors and Awards (partial listing)

Senior U.S. Scientist Award, Alexander von Humboldt Foundation, Germany, 1975
Fellow, American Society of Mechanical Engineers, 1976
Heat Transfer Memorial Award, American Society of Mechanical Engineers, 1976
AIAA Thermophysics Award, American Institute of Aeronautics and Astronautics, 1979
JSPS Fellowship, Japan Society for the Promotion of Science, 1983
Distinguished Engineering Alumnus, University of Illinois at Urbana-Champaign, 1982
Senior Research Award, American Society for Engineering Education, 1984
AIChE/ASME Max Jakob Memorial Award, 1986
Member, National Academy of Engineering, 1987
Melville Medal, American Society of Mechanical Engineers, 1988
Fellow, American Institute of Aeronautics and Astronautics, 1988
1991 Nusselt-Reynolds Prize, The Assembly of World Conferences on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, 1991
Dr.-Ing. E.h. (Doctor honoris causa), Technical University of Munich, 1994
Thermal Engineering Award for International Activity, Japan Society of Mechanical Engineers, 1994
Foreign Member, Academy of Engineering Sciences of the Russian Federation, 1995
Alumnus Award for Distinguished Service, College of Engineering, University of Illinois at Urbana-Champaign, 2000

Experience and Qualifications

Professor Viskanta has broad knowledge of physical sciences, mathematical modeling of thermal systems and of experimental techniques. While a faculty member at Purdue University during the last 30 years he has directed the research of over 60 Ph.D. and over 50 M.S. candidates. He also has guided advanced research of over 30 post-doctoral scholars. His work has been in the general area of thermal sciences and has covered a broad class of problems ranging from natural convection flow and heat transfer, melting and solidification heat transfer, single and two-phase jet impingement heat transfer, heat transfer in porous media, heat transfer in radiatively participating media, heat transfer in combustion systems and many others. Most of his research papers were co-authored with students and published in refereed journals or in the proceedings of conferences and symposia.

Professor Viskanta has over 30 years experience related to thermal hydraulics, safety analysis and severe accident phenomenology of LWRs. This experience dates back to the days when he was a staff member of the Reactor Engineering Division at Argonne National Laboratory. During the last 10 years he has served as a consultant to the US Department of Energy, US Nuclear Regulatory Commission and national laboratories (ANL, Battelle-Pacific Northwest, BNL, INEL, LANL and LLNL) on problems related to thermal hydraulics, natural convection circulation in PWRs under severe accident conditions, heat transfer in degraded nuclear reactor cores, severe nuclear reactor accident phenomenology, passive cooling of advanced LWRs (AP600 and SBWR), evaluation of scaling issues related to severe accident experiments and phenomena, fuel-coolant interactions and related topics. He has also served on the US NRC constituted peer review panel for the reactor risk reference document (NUREG-1150) and on peer review panels for the integral, severe nuclear reactor accident analysis codes (MELCOR and SCDAP/RELAP5). He was a member of Space Studies Board of the National Research Council and served as Chairman of the Committee on Microgravity Research.

Professor Viskanta has authored or co-authored over 450 refereed papers and has prepared over 50 invited review articles ranging in topics from heat transfer in natural and forced convection in single and two-phase flows to phase change in porous media.