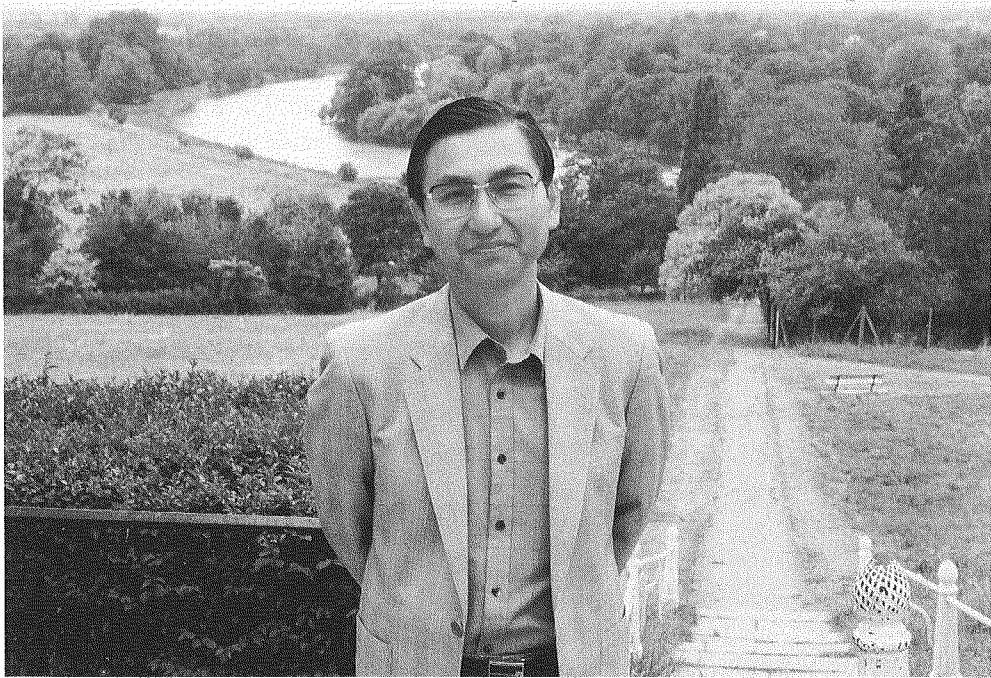


OBITUARY

Dr. YASUHIKO HANGAI
1942-1998



Dr. Yasuhiko Hangai, the representative of ERS, a Professor of the University of Tokyo and an internationally recognized outstanding researcher, passed away on August 9, 1998. All the members of ERS were deeply shocked at this sad news. His demise was so sudden and he was so young and so active that it is very hard to accept this untimely end.

Yasuhiko Hangai was born in Fukushima, Japan in 1942. He pursued his studies in structural engineering at the University of Tokyo. During his graduate studies, he was affiliated with the laboratory of Dr. Yoshikatsu Tsuboi, the great researcher and engineer of shell structures.

He began his academic career in 1969 as a research associate at the Institute of Industrial Science, University of Tokyo and subsequently earned his Doctor of Engineering at the same university for his studies on the nonlinear analysis of lightweight structures. He started his research on tracing nonlinear equilibrium path of

shallow space frames by means of static perturbation method. Then he gradually extended his interest to the general nonlinear problems of analysis, such as nonlinear vibrations, large displacements, unilaterally constrained systems and inverse problems of structures.

He was one of the pioneering researchers in the application of the theory of the generalized inverse to the field of structural engineering. With this, he overcame the problem of matrix singularity which made it possible to trace large deformation process of extremely flexible systems, such as cable structures or membrane structures, without any fundamental difficulties. His earliest papers on application of the generalized inverse appeared in the Solid Mechanics Archives in 1981 and in the proceedings of the International Conference on Finite Element Methods in 1982. He wrote a book on the application of the generalized inverse to computational mechanics in 1991 in Japanese, which is now under translation into English.

He was a gifted leader in the field of structural analysis. His latest interest was to cultivate a new field of structural analysis, for the generation of good, but not necessarily optimum, shapes for structures by means of numerical analysis techniques. He named the field Shape Analysis. His activity in this field was expanding.

He served as a member of the Executive Council of the International Association for Shell and Spatial Structures (IASS) since 1987 and he held many important positions in Japanese associations such as Architectural Institute of Japan and Japan Society for Computational Engineering and Science (JSCES). He was the recipient of awards from many academic societies in the world.

He was also a sports-man. He loved climbing mountains and playing tennis with his friends. He ran a full marathon every year. He was so energetic and human.

He was a person who was giving guidance to us, the younger generation in the ERS members. His friends, colleagues and students will miss a distinguished researcher and a truly likeable man, who always wore a friendly and gentle smile. He will be long remembered for his contributions to the field of structural engineering as a pioneering researcher, and for his worldwide activities as an outstanding representative of the Japanese structural engineering academic community.

K. Kawaguchi