

Heinz Parkus (1909-1982)

PROFESOR EMERITUS HEINZ PARKUS, foreign member of the Polish Academy of Sciences and foreign member of the Editorial Advisory Committee of "Archives of Mechanics" passed away unexpectedly in his home in Vienna on March 18, 1982.

Heinz PARKUS was born in Vienna on January 31, 1909 and studied Mechanical Engineering from 1927-32 at the TU-Vienna.

On July 1, 1945 he began his academic career as a scientific assistant to K. Girkmann, Professor of Structural Mechanics, at the TU-Vienna. Despite the difficulties of post-war time, he finished his doctoral studies within a year with honors and already two years later he became Assistant Professor of Mechanics. Until 1951 he taught successfully several courses on special topics of Mechanics, including Aerodynamics, which were highly appreciated among post-graduate students. The great output of papers testified to the research activities of Heinz PARKUS at that time, who, in addition, did also consulting work for the newly born Austrian industry.

In 1951 he accepted the invitation of the National Pneumatic Company to Boston, USA and conducted the research on a mini-helicopter. At the end of 1952 Heinz PARKUS was called to the chair of Applied Mathematics at Michigan State University, East Lansing, where he lectured in post-graduate courses with special emphasis on Elasticity and Potential Theory, Analytical- and Relativistic Mechanics, Hydro- and Gasdynamics for students majoring in Mathematics and Physics. After those few years in the USA, he returned to the TU Vienna as Professor of Rational and Analytical Mechanics in 1955. Both the first volume on "Thermal Stresses" (in cooperation with E. Melan), which appeared at Springer, Wien-New York in 1953, and the second volume on "Instationary Temperature Fields" (1959) were translated into several languages. A modern account of the field in English was given by him in "Thermoelasticity" (2nd. ed. Springer, Wien-New York, 1976).

The students of Mechanical Engineering at the TU-Vienna benefited by the unified concept of Mechanics which Heinz PARKUS presented also in the introductory course, "Mechanics of Solids". Not before long a highly-appreciated textbook accompanied that course which appeared in 1960 (Springer, Wien-New York), the second edition was reprinted in 1981. This book is generally considered a milestone in the development of teaching of modern Applied Mechanics. Heinz PARKUS continued presenting postgraduate courses on "Flight Dynamics", "Nonlinear Vibrations and Stability". Above all he was one of the first researchers in Europe who applied stochastic processes in the fields of mechanics and interpreted the "new mathematics" for engineers. A recent topic of his research and teaching program was continuum physics, where he studied the interaction of electro-magnetic fields with deformable matter which is documented in several monographs. The 80 publications (a list appeared in the Proceedings "Topics in Applied Continuum Mechanics", Springer, Wien-New York, eds. J. L. Zeman and F. Ziegler) as well as the stimulating lectures of Heinz PARKUS initiated a Viennese school of mech-

anics, which produced numerous dissertations and more than 10 habilitations. Heinz PARKUS returned to the USA several times as a visiting professor of renowned universities, e.g. in 1963/64 of Yale University and as consultant of the American Atomic Agency in 1967 in the National Laboratory in Oak Ridge, Tennessee, where he became an honorary citizen. He also paved the way for his graduate students to participate in American research while he did contract himself for the US Government.

In 1961 Heinz PARKUS was elected full member of the Austrian Academy of Sciences and in 1962 he visited the USSR as a guest of the Academy where he lectured at the Lomonosov University and the TU-Leningrad. He became a foreign member of the Polish Academy of Sciences in 1967 and in 1981 was elected member of the New York Academy of Sciences.

The Universities in Aachen, Karlsruhe, Paris, Trieste, Liverpool, Glasgow and Budapest invited Heinz PARKUS as visiting professor and the TU-München promoted him to Dr.-Ing. h.c. in 1976. Also in 1979 the Austrian Academy of Sciences honoured his scientific work with the "Erwin Schrödinger Prize". Not only the Republic of Austria awarded Heinz Parkus a silver medal of merit in 1976, but also the City of Vienna granted him the "Award of Sciences" in 1979 and the Viennese Business Corps the "Engineering Award" in 1969. Heinz PARKUS has been the Austrian delegate in the International Union of Theoretical and Applied Mechanics (IUTAM) and Rector of the International Centre for Mechanical Sciences (CISM), Udine, Italy. He organized the annual GAMM-Conference in 1965 and (together with L. I. Sedov) the IUTAM-Symposium on "Irreversible Aspects of Continuum Mechanics and Transfer of Physical Characteristics in Moving Fluid" in 1966 in Vienna. He was founder and retired editor-in-chief of "Acta Mechanica", co-editor of the "Int. Journal of Solids and Structures" and "Mechanics Research Communications" and founding president of the "Austrian Society of Earthquake Engineering".

The sudden death of Heinz PARKUS is a tragedy for his friends; for the Viennese school of mechanics and for us, however, it is a great loss which will be deeply felt for many years to come.

Editorial Committee