

Professor Algirdas Žukauskas on his 70th birthday



PROFESSOR Algirdas Žukauskas, Academician of the Lithuanian Academy of Sciences, Honorary Editorial Advisory Board Member of the *International Journal of Heat and Mass Transfer* was born on February 2, 1923 in Lithuania.

In 1947 he graduated from Vitautas Magnus University in Kaunas. After graduating he worked as an Assistant Professor at the university in the Department of Engineering and from 1951 at the Kaunas Polytechnic Institute. In the period of 1952–1953 he specialized in heat transfer at the Moscow Institute of Power Engineering.

After graduating he started the research in convective heat transfer and fluid mechanics from circular cylinders and tube bundles that led in 1953 to the Candidate degree (Engineering Sciences). Later, he defended his doctor's thesis entitled 'Convective Heat Transfer in Viscous Fluid Flows' (1963).

In 1953 A. Žukauskas joined the Physical and Technical Institute of the Lithuanian Academy of Sciences where he organized a research laboratory of heat transfer. He also worked as the Associate Professor and then Professor at the Kaunas Polytechnic Institute.

Since 1956 Algirdas Žukauskas had been working as the head of the laboratory and director of the Institute of Physical and Technical Problems of Engineering of the Lithuanian Academy of Sciences in Kaunas. Since 1966 A. Žukauskas has been Vice-

President of the Academy, at the same time leading heat transfer investigations at the Kaunas Institute.

During many years the research activities of Professor Žukauskas involved a laminar boundary layer and heat transfer in laminar flows, a turbulent boundary layer and heat transfer in turbulent flows, a flow pattern over a cylinder and heat transfer from cylinders in crossflow, heat transfer from tube bundles in crossflow, heat transfer and flow over rough and finned tubes, vibrations of tubes in heat exchangers, heat transfer in channel and duct flows, heat transfer in the presence of chemical reactions and high-temperature gas flows, combined convective and radiative heat transfer. At present he is working on the problems of augmentation of heat transfer and efficiency of heat exchangers.

Professor Žukauskas was the first to start investigations of heat transfer in Lithuania. He is a founder of the convective heat transfer school in Lithuania. He has established the laws and deduced the formulae for calculating convective heat transfer in liquids. The methods which have been put forward by him for the calculation of heat transfer are being used in the construction of heat exchangers in power engineering, the chemical industry and other fields of technology. The results of his research are now cited in different handbooks and textbooks in many countries.

About 500 scientific publications by A. Žukauskas have been issued in Lithuania, the U.S.S.R., the

U.S.A., the U.K., Japan, Germany, Israel, Canada, France, Yugoslavia, Italy, India, China, Sweden, Turkey and other countries. He authored 10 considerable and widely known books—monographs, such as *Heat Transfer in Fluid Turbulent Flows*, *Heat Transfer in Fluid Laminar Flows*, *Heat Transfer from Tubes in Crossflow*, *Convective Heat Transfer in Heat Exchangers*, *Fluid Dynamics and Vibration of Tube Banks in Fluid Flows*, *High-Performance Single-Phase Heat Exchangers*, etc.

Since 1968 A. Žukauskas has been the Editor-in-Chief of the series of monographs *Thermophysics*, 22 monographs of which have been already published in Vilnius. He is also the Editor of the *Journal of Power Engineering* issued in Vilnius, *Heat Transfer—Soviet Reviews* series published in New York, the serial collection *Achievements in Heat Transfer* and a member of the editorial and advisory boards of the handbook *Heat Exchanger Design Handbook* and the journals: *Inzhenerno-fizicheskii Zhurnal (Journal of Engineering Physics)*, *Previews of Heat and Mass Transfer*, *Heat Transfer—Soviet Research*, *International Journal of Heat and Mass Transfer*, *Heat and Technology*, *Thermal Engineering*, *International Communications in Heat and Mass Transfer*, *Experimental Thermal and Fluid Science*, *Journal of Energy*, *Heat and Mass Transfer*. Fifty Candidate and Doctor theses were maintained under his guidance. He holds numerous patents. Professor A. Žukauskas also contributed much to scientific cooperation among various countries. Practically, he is engaged in the work of various councils and committees of heat and mass transfer, power engineering and atomic energy in Lithuania and other countries. He is a member of the World Assembly of International Conferences on Heat Transfer, the International Center for Heat and Mass Transfer and the International Association of Hydraulic Research.

For many years he served on the Committee for Scientific Cooperation in Thermophysics, the National Committee for Heat and Mass Transfer in the Soviet Union, the Heat Transfer Committee for the Baltic States, being also the chairman of the committee of the same name inside the Republic.

Professor Žukauskas visited various scientific centres and universities and lectured in the U.S.S.R., the U.K., Austria, Canada, the U.S.A., Germany, Japan, Yugoslavia, France, Czechoslovakia, India, Italy, Sweden and other countries. He is regularly invited to international conferences to deliver his review lectures on heat transfer in single-phase flows and on the problems of heat transfer augmentation.

Professor A. Žukauskas is a well-known personality in the professional world. His works have greatly contributed to the development of the theory of heat transfer and fluid mechanics and of heat exchangers.

Many honours have been bestowed on Professor Žukauskas in recognition for his professional accomplishments. In 1962 he was elected a member of the Lithuanian Academy of Sciences. He has received The Fellowship Award of the International Center for Heat and Mass Transfer (1986), the State Prize of the Lithuanian Republic (1975), the titles of Honoured Researcher of the Lithuanian Republic (1974) and Honoured Engineer of the Lithuanian Republic (1965) and others.

Best congratulations are extended to Professor Algirdas Žukauskas by long-time co-workers, numerous thermal engineering students, colleagues and friends from different countries. Many happy years, good health, fruitful scientific work and good luck to the whole family!

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