

PROFESSOR BEI TSE CHAO

ON HIS 65TH BIRTHDAY



PROFESSOR BEI TSE (B.T.) CHAO, currently Head, Department of Mechanical and Industrial Engineering, University of Illinois, Urbana, Illinois, U.S.A., has made outstanding contributions to heat transfer research and education over the past 35 years. It is indeed a great pleasure to honor his record of achievements on his 65th birthday.

Professor Chao has a very interesting multi-national and multi-disciplinary background. Born in China on 18 December 1918, he received his B.S. degree in Electrical Engineering in 1939 from the Chiao-Tung University, Shanghai, China, and spent a few years (1939-1944) as a practicing engineer at the Central Machine Works in China. Partly due to his job assignment, his interest shifted from electrical engineering to mechanical engineering, particularly metal machining. In the midst of the Second World War, he went to England for advanced studies and completed his Ph.D. work at the University of Manchester in 1947. Joining the University of Illinois in 1948 to continue his research and teaching, he collaborated for several years with Professor K. J. Trigger to tackle the difficult subject of the thermophysics of metal cutting. Their published work on this subject remains a classic in the field. In

recognition of this contribution, they were awarded the ASME Blackall Machine Tool and Gage Award in 1957. This work also served as a bridge for Professor Chao to devote more effort to the rapidly expanding field of heat transfer.

The decade of the 1960s was a most prolific research period for Professor Chao. He made pioneering contributions on a variety of topics, including liquid metal heat transfer, thermal contact resistance, thermal modeling of spacecraft, bubble and particle dynamics in flows, and laminar boundary layer heat transfer. In recognition of these contributions Professor Chao has received many honors including the 1971 ASME Heat Transfer Division Memorial Award. Despite the heavy administrative duties associated with his appointment as Department Head in 1975, Professor Chao has continued to produce research results of the highest quality. In addition, for the period of 1975-1981, he found time to serve as a Technical Editor of the *ASME Journal of Heat Transfer*.

Professor Chao is also widely known for his devotion and excellence in the teaching of heat transfer. Recognition of his outstanding teaching includes two awards from the American Society of Engineering Education: the Western Electric Fund Award in 1973

and the Mechanical Engineering Division Outstanding Teaching Award in 1975.

For his contributions to heat transfer research and teaching, Professor Chao was elected to the membership of the U.S. National Academy of Engineering in 1981.

Professor Chao's accomplishments would not have been possible without the devoted and loving care and encouragement from his wife May. Their happy family

also includes two adopted children (a son and a daughter), both of whom now have successful business careers of their own in Brazil.

On the occasion of his 65th birthday, we join with many of his colleagues and friends to wish him many years of continued professional success, good health and family happiness.

CHANG-LIN TIEN
JAMES P. HARTNETT