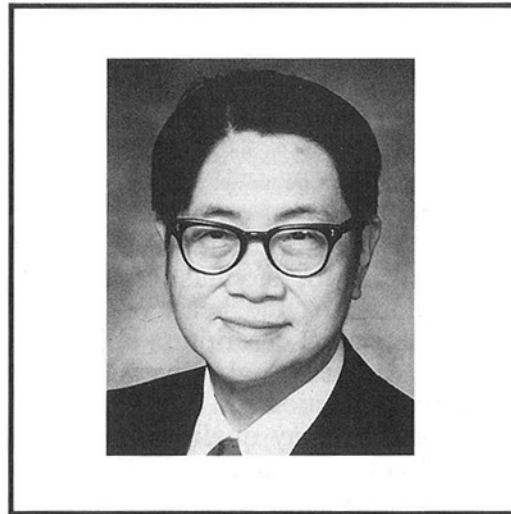


IN MEMORIAM

Professor Shien-Ming (Sam) Wu
J. Reid and Polly Anderson Professor of Manufacturing Technology
The University of Michigan - Ann Arbor



On October 28, 1992, on his 68th birthday, Professor S. M. Wu was taken from our midst and from the activities of an extraordinarily creative working life. His contributions to the Society and to his chosen field of manufacturing engineering were numerous, but both for those who knew him and those who viewed him from a distance, his greatest legacies are his enthusiasm for work and his zest for life.

Professor Wu was born in Chekiang, China in 1924. He received a bachelor's degree in financial administration from Chiao-Tong University in Shanghai in 1945. Before emigrating to the US in 1954, he worked for the Nanking-Shanghai & Taiwan Railroads, where by the age of 24 he had become the railroad station master in Taipei, Taiwan. He held an M.B.A. in transportation from the Wharton School at the University of Pennsylvania (1956), and a B.S. (1958) and Ph.D. degrees (1962) in mechanical engineering from the University of Wisconsin-Madison. He remained to serve on the mechanical engineering faculty at the University of Wisconsin for 25 years before joining the University of Michigan in 1986.

Professor Wu's contributions were widely recognized and led to many honors and awards. He was a fellow of the American Society of Mechanical Engineers and of the Society of Manufacturing Engineers, and a member of the Academia Sinica (elected in 1982) and Sigma Xi. He was the recipient of numerous awards including the Society of Manufacturing Engineers National Education Award (1974), the University of Wisconsin AMOCO Distinguished Teaching Award (1977), the Fulbright Distinguished Professorship in the U.S.S.R. (1988), the Chiang Technology Achievement Award from the Chiang Industrial Charity Foundation Ltd. in Hong Kong (1991), and the University of Michigan Distinguished Faculty Achievement Award (1992).

A world renowned scholar in manufacturing science and engineering, Professor Wu has not only created several key technologies used in modern manufacturing but, perhaps more importantly, he also shaped the careers of new generations of engineers and scientists. His former student collaborators now are distributed across the face of the earth, and many have assumed important positions in academic institutions, government, and industry. He took great interest in advising young investigators and followed, with great pride, the accomplishments of those who worked with him over the years. Throughout his 30-year long academic career as a distinguished educator, he supervised 114 Ph.D. graduates, 86 M.S. students and 36 post doctoral fellows. He had that gift of being able to recruit the best promising students and to discover and fully utilize their talents to get the best out of them. His supervision of research and doctoral work was marked by an inexorable insistence on scientific content accompanied by pragmatic industrial relevance and implementation of the results. He set the highest standards of achievement both for himself and for his students, whose personal development was one of his paramount concerns. His adamant longing for clear-cut logic easily disclosed weak spots in their proposals and arguments, however, his generosity of spirit and insight made his mentorship a precious gift.

Professor Wu belonged to an early generation of pioneering investigators who defined the present expansive field of manufacturing science. He, himself, was the first to introduce advanced statistical techniques including experimental design, stochastic process and time series analysis to manufacturing research and technology. At the heart of this was the Dynamic Data System methodology which, providing a mathematical description of complex manufacturing processes and systems, found countless applications in seemingly diverse problem areas ranging from system analysis, prediction, control, system diagnostics and monitoring, to dynamic quality control. This methodology became the foundation for many quality improvement programs implemented by leading manufacturing firms worldwide, and also the basis for many other breakthroughs in manufacturing science. His work has left a lasting impact in the fields of precision machining and measurements, drilling processes, automation and control and others. His scientific legacy of approximately 300 publications reflects an unparalleled erudition, imagination and profound insight of this outstanding teacher and researcher. Anyone who met him at a scientific meeting or worked with him maintained long-term friendships with him. He was a bold investigator with the courage to strike out in a completely new direction when he had stumbled on a problem that had stirred his interest. His fertile mind, unbounded curiosity and will to know served him well in the research that was to form the basis of a distinguished career. His scientific offspring will continue in the tradition he established.

We shall miss his untiring, perspicacious and fertile creativity and his boundless energy, but take great solace in the fact that these attributes live on in his legacy to all of us. In deep gratitude, we mourn a visionary scientist and educator torn too early from a life still full of imaginative creativity.

Professor K. F. Ehmann
Department of Mechanical Engineering
Northwestern University
2145 Sheridan Road
Evanston, IL 60208

Professors S G. Kapoor & R. E. DeVor
Department of Mech. & Industrial Engineering
University of Illinois at Urbana-champaign
1206 West Green Street
Urbana, IL 61801