



### **Professor Chien Wei-Zang (1913 – 2010)**

See:

[http://en.wikipedia.org/wiki/Chien\\_Wei-zang](http://en.wikipedia.org/wiki/Chien_Wei-zang)

<http://facta.junis.ni.ac.rs/macar/macar98/macar98-21.pdf>

From Wikipedia, the free encyclopedia:

Chien Wei-zang or Qian Weichang (9 October 1913 - 30 July 2010) was a Chinese physicist and applied mathematician, as well as academician of the Chinese Academy of Sciences.

Chien, a scientist and educator, was the President of Shanghai University. He was born in Wuxxi County, Jiangsu Province, China, on October 9, 1913. After graduating from Tsinghua University in 1935, he entered the Graduate School of Tsinghua University and became an intern researcher at the National Central Research Institute under the guidance of Prof. Wu Youxun. He obtained a Ph.D. degree at the University of Toronto under the supervision of Prof. J.L. Synge in 1942, and then worked as a research associate in the Jet Propulsion Laboratory of Caltech.

In 1946, Chien returned to China and served as professor of Tsinghua University, Peking University and

Yanqing University. In 1950s, he was Dean of Studies and Vice President of Tsinghua University, Vice Director of the Institute of Mechanics of Chinese Academy of Sciences (CAS), Director of the Institute of Automation of CAS, and a member of the Standing Committee of All China Federation of Scientific Societies. He had been an academician of CAS (formerly named as member of CAS) since 1954 and a foreign academician of Polish Academy of Sciences since 1956.

In 1982, Chien became President of Shanghai University of Technology, which was turned into a shambles after the consolidation of 4 institutions of higher education in 1994.

Chien was Editor-in-Chief of "Applied Mathematics and Mechanics", a member of the Editorial Boards of "International Journal of Engineering Science"(US), "Advances in Applied Mechanics"(US), "Journal of Thin-walled Structure"(Holland) and "Journal of Finite Elements in Analysis and Design". He had been Vice Chairman of the National Committee of Chinese People's Political Consultative Conference since 1987.

Chien was a specialist in applied mathematics, mechanics, physics, engineering science and Chinese information processing. He was generally acknowledged as one of the pioneers and founders of modern mechanics undertakings in China. His major research activities include; the intrinsic theory of plates and shells, the analysis of large deflection of thin plates and shells, the analysis of corrugated pipes, mechanics of armour penetration, singular perturbation methods, variational principles and generalized variational principles, finite element methods as well as the measurements of atmospheric electricity, spectral analysis of rare-earth elements, wave guide theory, lubrication theory, the development of high-energy batteries, Chien's macro-coding of Chinese characters, etc. The joint work with J. L. Synge on the intrinsic theory of plates and shells is considered as a pioneering classical work in solid mechanics and his successive approximation method of treating large deflection problem is now named as "Chien's method". And he initiated a novel singular perturbation method, the method of composite expansions.

Chien had thus far published in academic monographs and hundreds of scientific papers. Due to his work on the problems of large deflation of circular elastic plates and the generalized variational principles, he won the National Science Prize (Second Class) twice, in 1965 and 1982 respectively. He also made great contribution to the engineering applications of sciences, such as the fluttering of airplanes, the design of submarines, armour penetration, the design of instruments and panpipe systems.

In the early 1980s, Chien worked with Zhou Youguang and Liu Zunqi on creating a Chinese-language edition of Encyclopedia Britannica.

Since his presidency of Shanghai University (formerly Shanghai University of Technology), Chien had devoted himself singlehandedly to the reconstruction of the University and to the accomplishment of various reforms in higher education according to up-to-date advanced concepts. He deemed that the key role of higher education is to bring up excellent new generations with prefect personality and advanced expertise. For this purpose, he took a variety of measurements to establish a series of new effective systems in education. He laid emphasis on raising the academic level of the University and shows great concerns to the publication of academic journals at the University. In recent years, the University has made adequate progress in various respects.

Chien also served as chairman of the Steering Committee of the Third International Conference on Linear Mechanics in Shanghai in 1998.

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**PROFESSOR DR CHIEN WEI-ZANG (QIAN WEI-CHANG)**

Chairman of the Steering Committee of the Third International Conference on Nonlinear Mechanics, Shanghai, 1998, President of Shanghai University

Prof. Chien Wei-Zang, a renowned scientist and educationist, is President of Shanghai University. He was born in Wuxi County, Jiangsu Province, China, on October 9, 1913. After graduating from Tsinghua University in 1935, he entered the Graduate School of Tsinghua University and became an intern researcher at the National Central Research Institute under the guidance of Prof. Wu Youxun. He obtained Ph. D, degree at Toronto University under the supervision of Prof. J.L. Synge in 1942, and then worked as a research associate in the Jet Propulsion Laboratory of Caltech. In 1946, he returned to China and served as professor of Tsinghua University, Peking University and Yanjing University. In 1950s, he was Dean of Studies and Vice President of Tsinghua University, Vice Director of the Institute of Mechanics of Chinese Academy of. Sciences (CAS), Director of the Institute of Automation of CAS, and a member of the Standing Committee of All China Federation of Scientific Societies. He has been an academician of CAS (formerly named as member of CAS) since 1954 and a foreign academician of Polish Academy of Sciences since 1956. He became President of Shanghai University of Technology, which was turned into Shanghai University after the consolidation of 4 institutions of higher education, in 1982 and Director of Shanghai Institute of Applied Mathematics and Mechanics in 1984. He is Editor-in-Chief of "Applied Mathematics and Mechanics", a member of the Editorial Boards of "International Journal of Engineering Science"(US), "Advances in Applied Mechanics"(US), "Journal of Thin-walled Structure"(Holland) and "Journal of Finite Elements in Analysis and Design". He has been Vice Chairman of the National Committee of Chinese People's Political Consultative Conference since 1987.

Prof. Chien Wei-zang is an outstanding specialist in applied mathematics, mechanics, physics, engineering science and Chinese information processing. He is generally acknowledged as one of the pioneers and founders of modern mechanics undertakings in China. His major research activities include; the intrinsic theory of plates and shells, the analysis of large deflection of thin plates and shells, the analysis of corrugated pipes, mechanics of armour penetration, singular perturbation methods, variational principles and generalized variational principles, finite element methods as well as the measurements of atmospheric electricity, spectral analysis of rare-earth elements, wave guide theory, lubrication theory, the development of high-energy batteries, Chien's macro-coding of Chinese characters, etc. The joint work with Prof. J. L. Synge on the intrinsic theory of plates and shells is considered as a pioneering classical work in solid mechanics and his successive approximation method of treating large deflection problem is now named as "Chien's method". And he initiated a novel singular perturbation method, the method of composite expansions. Prof. Chien has thus far published in academic monographs and hundreds of scientific papers. Due to his work on the problems of large deflection of circular elastic plates and the generalized variational principles, he won the National Science Prize (Second Class) twice, in 1955 and 1982 respectively. He also made great contribution to the engineering applications of sciences, such as the fluttering of airplanes, the design of submarines, armour penetration, the design of instruments and pipe systems, etc.

Since his presidency of Shanghai University (formerly Shanghai University of Technology), he has devoted himself to the reconstruction of the University and to the accomplishment of various reforms in higher education according to up-to-date advanced concepts. He deems that the key role of higher education is to bring

up excellent new generations with perfect personality and advanced expertise. For this purpose, he took a variety of measures to establish a series of new effective systems in education. He lays emphasis on raising the academic level of the University and shows great concerns to the publication of academic journals at the University. In recent years, the University has made remarkable progress in various respects. *From Journal of Shanghai University Vol. 2 No. 2 June 1998*