

Professor Henry T Y YANG

Citation

Professor Henry T Y Yang is the fifth Chancellor of the University of California at Santa Barbara (UCSB). He served as Dean of Engineering at Purdue University for 10 years, and is one of few distinguished Chinese American academicians to rise to the highest level in US universities. Professor Yang brought the academic programs at these two institutions to national prominence through the vigorous recruitment of distinguished faculty and students, creation of interdisciplinary national research centers, and the establishment of innovative teaching and learning programs.

US News and World Report, 1994, ranked the graduate programs of Purdue's School of Engineering first among all public universities and third among all universities in the United States 10 years after he had served as the Dean of Engineering. In *The Rise of American Research Universities* published by John Hopkins University Press in 1997, UCSB was ranked the number two public research university.

Professor Yang's tireless efforts in cultivating a strong partnership with alumni at UCSB have resulted in an impressive fundraising record.

Professor Yang obtained his BS degree in Civil Engineering from National Taiwan University in 1962, his MS degree from West Virginia University in 1965, and his PhD in Structural Engineering from Cornell University in 1968. After graduating from Cornell, he joined the faculty at Purdue University where he served as the Head of the School of Aeronautics and Astronautics from 1979 to 1984, and as Dean of Engineering from 1984 to 1994. At Purdue, Professor Yang led the successful

establishment of the NSF Engineering Research Center for Intelligent Manufacturing Systems, which has made noteworthy contributions to the innovation of manufacturing systems internationally. Through his leadership, UCSB and UCLA have jointly established a California NanoSystems Institute, one of the four California Institutes for Science and Innovation.

As a world-renowned scholar who has made lasting contributions to a wide spectrum of engineering fields, Professor Yang has published over 160 journal papers. His pioneering and voluminous development of the finite element method in plates and shells has become classic. An originator, a thinker and a leader in transonic computational aero-elasticity, his publications have advanced the state-of-the-art in optimal aircraft design with flutter constraints, and introduced the idea of using piezoelectric actuators for flutter control. His research on earthquake engineering has significantly improved the earthquake resistant design of fossil fuel stream generating plants around the world. As a Chancellor, he continues to teach and undertake research. He remains a leading researcher in the area of sensing and control of building structures due to seismic and wind excitation using neural networks, and was among the first to study meso-scale plasticity and deformation process.

An exemplary educator who received a total of 12 outstanding undergraduate teaching awards from Purdue University, Professor Yang's book, *Finite Element Analysis*, published by Prentice Hall, has been adopted as a textbook in many US universities and has been translated into Japanese and Chinese. Professor Yang has supervised 50 PhD and 18 Masters students. Many are

faculty members in well-known universities around the world. To reflect his commitment to undergraduate teaching, Professor Yang continues to teach one or two undergraduate courses each year at UCSB. He is currently supervising five PhD students.

Professor Yang has received many honors and awards. He was elected a Fellow of the American Institute of Aeronautics and Astronautics in 1985, and a Fellow of the American Society of Engineering Education in 1993. He was named the Neil A Armstrong Distinguished Professor of Aeronautics and Astronautics at Purdue in 1988, and was awarded an honorary doctorate from Purdue in 1996. He is a recipient of the 1993 Centennial Medal and the 1998 Benjamin Garver Lamme Award, the latter being the highest honor given by the American Society of Engineering Education. He was elected a member of the US National Academy of Engineering in 1991, and a member of Academia Sinica in 1992.

Professor Yang has devoted much of his time to promoting the advancement of science, engineering and technology in the United States and Far East. He is a founding member of the Steering Committee of the Association of the Pacific Rim Universities, and has served as a member of the Advisory Board to HKUST's School of Engineering from 1993 to 1994. He has been a member of the Selection Board of Ho Leung Ho Lee Foundation since 1995. He is also a Co-Chair of the Broad Vision Coordinating Committee for Higher Education in Taiwan's Executive Yuan.

Mr Pro-Chancellor, I have the honor to present to you, on behalf of the University, Professor Henry T Y Yang, Chancellor of the University of California, Santa Barbara, for the degree of Doctor of Engineering *honoris causa*.

Written by Professor Ping Cheng.