C.K. WANG: A LEGACY OF EXCELLENCE IN EDUCATION

In 1941, C.K. Wang came from China to accept a graduate fellowship at the University of Colorado. Backed by the strong recommendations of his mentor and professor, Clarence Eckel, then head of civil engineering at Colorado, he was able to complete his PhD at the University of Illinois in 1945. Years later, Wang established the Dean Clarence L. Eckel Memorial Awards for faculty and students in civil engineering at Colorado to honor Eckel's commitment.

In 1943, Wang worked one year in the airplane industry, searching for a thesis topic and aiming to help the war effort. He accomplished this in his published PhD thesis on the stress analysis of large holes with reinforcing rings, such as those used in airplanes for weight reduction. Following 12 years of teaching at Colorado and Illinois, he joined the UW faculty as a full professor in 1960. At that time one of his textbooks was already in use at UW, no doubt being appreciated by both faculty and students.

Before retiring in 1992, Wang had earned a reputation as a tough, albeit beloved, professor. During his 32 years, he taught thousands of students and served as advisor for more than 48 master's and 17 PhD students.

Wang's first objective was to help each one of his students reach their full potential. Students were greeted with an open door policy, invited to stop in at all times to discuss classes, research, or the field of structural engineering. In 1974, Wang received the college's prestigious Benjamin Smith Reynolds Award for Excellence in Teaching Future Engineers.

With nearly 10,000 pages of text attributed to him from more than nine book titles, Wang is a force in civil engineering departments throughout the world. His textbooks, including *Reinforced Concrete Design* (co-authored with Emeritus Professor Charles G. Salmon) and *Statically Indeterminate Structures*, are internationally recognized for their expert analysis of structural engineering.

Wang was one of the first to realize that his field would be revolutionized by the advent of computers. Before finite element analysis became the norm, he single-handedly developed computerized analysis procedures. Funded by the National Science Foundation, he conducted two summer courses in 1968 and 1970 for more than 70 civil engineering faculty in the United States and Canada. He was the principal lecturer in these courses using the preprints of his well-known textbooks in computer and matrix methods of structural analysis. He also taught a large number of weekly short courses for practicing structural engineers in the nation. In his later years, with a grant from the National Science Foundation, he and his PhD students developed new computer procedures in advanced structural analysis subjects like structural dynamics and structural system optimization.

Now in his mid-80s, Wang continues to support the structural engineering program. His $500,000 gift to the Wang Professorship exemplifies his commitment to the college, its students and faculty.

STRUCTURAL ENGINEERING

The structural engineering program offers an opportunity for advanced study and research in construction materials and structural systems. Designed to provide a flexible curriculum of course work and research, the program allows students to prepare for professional practice or careers in academia.

The program is led by four faculty members, Professors Lawrence C. Bank and Steven M. Cramer, and Associate Professors Michael G. Oliva and José A. Pincheira. Professors Cramer and Oliva, who received their undergraduate degrees in structural engineering at UW-Madison, were Wang's students.

With research interests including the analysis and design of composite material structures, concrete and wood components and structures; mechanics of composite materials; structural analysis and design; and earthquake engineering, the program is on the forefront of structural engineering innovation.

Current research projects include:

- Rapid repair of concrete structures with fiber-reinforced composites
- Structural and material properties in composite bridge decks
- Energy absorption in composite structural members
- Non-metallic reinforcements for concrete
- Behavior and design of pre-cast wall buildings
- Seismic performance of existing and rehabilitated buildings
- Strength predictions in structural lumber
- Fire endurance analysis of wood structural systems
- Structural performance of wood truss systems
- Nondestructive testing of steel members

Learn more about the research in the structural engineering program by visiting **www.engr.wisc.edu/cee**.

ENSURING CONTINUED SUCCESS

The C.K. Wang Professorship in Structural Engineering is a top priority in the college's Department of Civil and Environmental Engineering. Your help is needed to make it a reality. Please join C.K. Wang's colleagues, former students and friends in honoring Wang's illustrious career at UW-Madison while ensuring the future of structural engineering at the university.

Your gift will expand teaching and research capabilities, allowing the structural engineering program to advance to new levels. A pledge card and return envelope are enclosed for your convenience. Endowments like the C.K. Wang Professorship ensure that funds will always exist for outstanding areas within the university.

Contributions may be made in care of the **University of Wisconsin Foundation for the C.K. Wang Professorship**. Pledges may be made over a period of years, and gifts to the UW Foundation may qualify for a charitable tax deduction.

For more information on making a contribution to the C.K. Wang Professorship, please contact:

Debra Holt, Director of Development
University of Wisconsin Foundation
1848 University Avenue
Madison, WI 53708-8860
608/263-0779
deb.holt@uwfoundation.wisc.edu

For more information about other civil and environmental engineering initiatives, contact:

Professor Jeffrey S. Russell, PhD, PE
Chair, CEE Development Committee
2304 Engineering Hall
1415 Engineering Drive
Madison, WI 53706
608/262-7244
russell@engr.wisc.edu

In addition to a gift by check, consider the following gift options:

A GIFT OF STOCK

You may wish to take advantage of the many tax incentives associated with a gift of securities or appreciated property.

WILLS AND BEQUESTS

A charitable bequest can often reduce estate taxes, enabling you to make a gift to the C.K. Wang Professorship that might not otherwise be possible during your lifetime.

DEFERRED GIFTS

Many gift options, such as charitable remainder and annuity trusts, which provide a lifetime income, are available in support of the C.K. Wang Professorship.

"Professor Wang's encouragement led me into a PhD program, and I stayed at UW to study under his mentorship. He was a superb mentor and model in teaching, research and professional life. As a teacher and researcher he was demanding, creative, innovative, energetic and inspiring. I am forever grateful to him for guiding and preparing me so well for a most challenging and rewarding professional life."

Karl Romstad, Emeritus Professor
Dept. of Civil & Environmental Engr.
University of California, Davis

"C.K. Wang was a brilliant mathematician who applied his skills to structural engineering. His rigorousness to hold his students to a very high standard led them to great achievements."

Fred Teitgen, PE
Director of Structural Engineering
Flad & Associates

"C.K.'s classes were some of the most challenging and toughest in the undergraduate curriculum. The class sessions were sometimes dreaded, but I, like many other alumni I have spoken with, now look back on those classes as some of the best in our Wisconsin experience. I can still visualize C.K., 30 years later, standing in front of class with his arms splayed out and his leg raised up and bent, trying to show us the deformations in the beams and columns meeting at a joint."

Michael Oliva, PhD
Prof. of Civil & Environmental Engr.
University of Wisconsin-Madison

C.K. WANG

Professorship in STRUCTURAL ENGINEERING

"C.K. Wang was an outstanding role model for civil engineering students at UW-Madison. He was meticulous—he demanded detail and precision from his students. He was a great motivator."

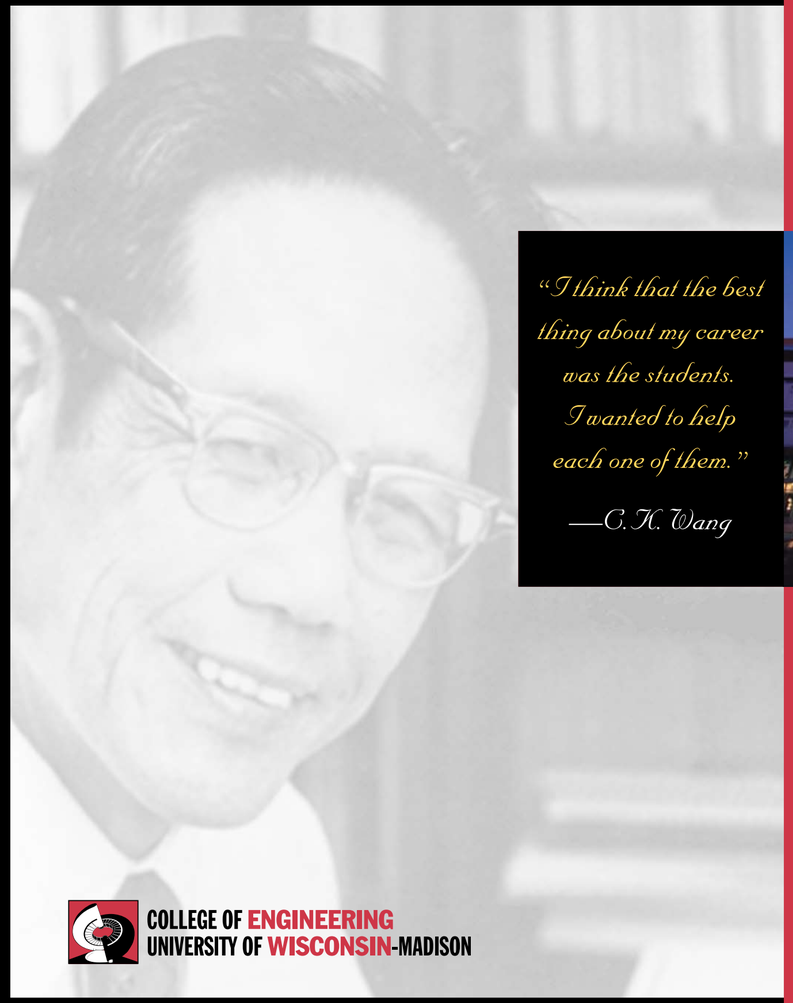
Tom Longlais
Senior Vice President
Sargent & Lundy, Chicago

"C.K. was very principled—that's the first thing that comes to mind. He was principled in the way he approached engineering; he was principled in his teaching; he was principled in the way he thought a university should operate. He clung to those high principles throughout his career. He was unwavering and has been a role model for many."

Steven Cramer, PhD, PE
Prof. of Civil & Environmental Engr.
University of Wisconsin-Madison

"C.K. Wang taught the first structural engineering class in the curriculum. More than any other class, it separated those who truly wanted to become structural engineers from those who didn't. It was a difficult class, taught by a very demanding professor who artfully mixed fear and humor. However, after taking a few more of his classes, I realized he was a lot like an egg—with a hard shell but a soft center."

Stan R. Caldwell, PE
Vice President, Halff Associates, Inc.



"I think that the best thing about my career was the students. I wanted to help each one of them."

—C.K. Wang

COLLEGE OF ENGINEERING
UNIVERSITY OF WISCONSIN-MADISON

"C.K. Wang had the ability to instill discipline in students that would last their entire career."

Rene Dupuis, PhD, PE
President, Structural Research, Inc.

"C.K. was so enthusiastic about his teaching that every lecture was both a listening and a visual pleasure. Structural analysis, an otherwise dry subject, became alive. C.K. became my sponsor, mentor and role model. I would have never pursued and succeeded in an academic career without him. He is one of the individuals who had the most influence on my life. In addition to his international stature as a teacher and researcher, C.K. could be counted upon for moral and personal guidance. In my mind, he was the conscience of the department."

Alain H. Peyrot, PhD, PE
President, Power Line Systems, Inc.

INTRODUCTION

The University of Wisconsin-Madison is an outstanding institution. Built on the work of great researchers, educators and leaders, it nurtures learning in a vast array of disciplines. The College of Engineering is one of the finest examples, supporting nine departments, including the Department of Civil and Environmental Engineering.

As one of the top-ranked graduate programs in the nation, the department is home to several successful curriculums, most notably structural engineering. This field has changed greatly in the past several decades, and the UW-Madison program has strived to lead the way to the next level of this industry. The program is poised to provide a solid education to the next generation of structural engineers.

As the structural engineering program evolves to meet a changing marketplace, it must work diligently to recruit and retain the best professors. The college's new **C.K. Wang Professorship in Structural Engineering** is a vital part of this future. Established with an initial $500,000 gift from Emeritus Professor C.K. Wang, this $1 million professorship will create a new faculty position in structural engineering. Such professorships cannot be funded through state dollars; they must be created through private support. Once fully funded, it will allow the department to strengthen Wang's legacy of excellence in devotion to training students and citizenship in the department.