

T.C. Kao (1949-2022)



Tsung-Chung (T.C.) Kao, international expert in high speed rail, CEE instructor and research professor, and director of RailTEC's High Speed Rail System program, died September 29, 2022, in Taipei, Taiwan. He was 73.

Kao completed his B.S. in Civil Engineering at the National Taiwan University (1971), his M.S. in Structural Engineering at Rutgers University (1974), and an M.S. (1975) and Ph.D. (1977), both in Geotechnical Engineering at the University of California, Berkeley.

Following more than a decade of experience with several major engineering projects, he began working with the Taiwan High Speed Rail (THSR) project in 1990, for which he participated in the initial feasibility study. Beginning in 1994, he served as the Adviser to the Provisional Office of the THSR project. After the project was privatized in 1997, he served as the Vice President of Engineering for the THSR Corporation for 11 years. In this role he participated in the design, construction and initial operation and commissioning of the THSR system.

Following his retirement from

THSRC in 2008, Kao resumed his academic career, teaching at National Taiwan University, National Central University, Hong Kong Polytechnic University and the University of Illinois Urbana-Champaign. The classes he developed and taught include High Speed Rail Engineering, High Speed Rail Planning, High Speed Rail Construction Management, High Speed Rail Operation and Maintenance, and Integration Project Management, with particular illustrations of his experience on the Taiwan High Speed Rail project.

Kao also served as the adviser to World Bank on its High Speed Rail Projects in China. In 2014, he was invited by Hong Kong Mass Transit Railway Corporation to serve as the Independent Expert for their Guangzhou-Shenzhen-Hong Kong Express Rail Link Project. Kao presented numerous invited lectures on high speed rail to railways, government offices and universities all over the world. He was a licensed Professional Engineer in California and Taiwan.

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The nature of engineers' work is their legacy in the form of projects they design or build. T.C. looms large in this respect, with three mega-projects completed in his lifetime. But his choice to spend his retirement sharing his extensive knowledge with thousands of students and colleagues worldwide transcends even these accomplishments. He taught with a passion, confidence and warmth that was engaging and inspirational. His legacy is thus expanding geometrically through all the good work his students are doing, and will do, in the coming decades. I am fortunate to call T.C. a colleague, a mentor and most importantly a friend.

– Chris Barkan, Professor and George Krambles Director of the Rail Transportation and Engineering Center, CEE, UIUC

"Professor Kao was one of the smartest, kindest people I had the pleasure of learning from during my time at UIUC. There are few people who make an impact on you that lasts a lifetime, and Professor Kao was one of those people. One interaction with him will leave you feeling inspired and motivated to achieve your dreams and be the best version of yourself. Wishing his family peace, courage and lots of love at this time. May his soul rest in peace. Thank you for everything, Professor Kao."

– Anusha Suryanarayanan (MS 14)
Rail Engineer, Jacobs, India

"In retrospect, the '185-mph rolling lecture' he gave during our HSR trip was an important influence on my later transition to railway academia. I can only hope that my lectures convey the same sense of passion and wonder at the possibilities of railway engineering that T.C. exuded whenever he spoke."

– C. Tyler Dick (MS 01, PhD 19) Assistant Professor,
University of Texas at Austin

"I have many memories of Professor Kao in class and at RailTEC happy hours, and I will always be grateful to him for sharing his knowledge, experience and good humor with us as students. Professor Kao exhibited an amazing combination of serious-mindedness and joy in teaching. He always went the extra mile to deepen our understanding of high-speed rail ... He supported me extensively in obtaining a fellowship to intern at Taiwan High Speed Rail Corporation for a year, not just writing me a letter of recommendation but actively facilitating my placement and learning experience."

– Samantha Chadwick (BS 10, MS 14, PhD 17) WSP,
Transit and Rail Engineer