



**Name in English:** T.Y. Lin  
**Name in Chinese:** 林同炎  
**Name in Pinyin:** Lín Tóngyán  
**Gender:** Male  
**Birth Year:** 1912-2003  
**Birth Place:** Fuzhou, China  
**Philanthropy:**

**Profession(s):** Civil Engineer, Structural Engineer

**Education:** B.S., Civil Engineering, 1931, Jiao Tong University; M.S., Civil Engineering, 1933, University of California, Berkeley

**Award(s):** 1953, Fulbright Award for study in Belgium; 1967, elected to the National Academy of Engineering; 1976, Berkeley Citation; 1986, presented with the National Medal of Science by President Ronald Reagan; 1994, named UC Berkeley's California Alumnus of the Year; first recipient of the American Society of Civil Engineer's Outstanding Lifetime Achievement in Design award

**Contribution(s):** The inventor and early advocate of pre-stress concrete, a material that has had a profound influence on modern building, largely due to his efforts. He has been considered one of the greatest structural engineers of his time. He worked on San Francisco's Moscone Convention Center (which housed the world's largest underground room at its time of construction-1982), the Kuan Du Bridge in Taiwan, and the roof of the National Racetrack in Caracas, Venezuela. At the age of 14, he passed the college entrance exams in China, earning the top score in math, second best overall for his entering class at Jiao tong University. He went to UC Berkeley for graduate studies, his masters thesis on direct moment distribution was the first student thesis to be published by the American Society of Civil Engineers. After earning his masters in 1933, he returned to China to work for the Chinese Ministry of Railways. He became chief bridge engineer of the Yunnan-Chongqing Railway at the age of 25. In 1941, T.Y. Lin accepted an invitation to join UC Berkeley's faculty (serving in numerous administrative posts until his retirement in 1992, including Professor of Arts and Science and chair of the Board of Educational Development).

At UC Berkeley, he began his research in pre-stressed concrete. As pre-stressed concrete was not a popular material for building in the 50s, Lin helped assemble the first World Conference on Pre-stressed Concrete in San Francisco (1957), which was attended by 1,200 engineers, scientists and manufacturers. The conference had a huge impact on building, making possible the construction of high rises and long-span strong structures. In 1954, he founded T.Y. Lin and Associates (later T.Y. Lin International) to research real-world applications for pre-stressed concrete. Countless lives have been, or will be, saved during earthquakes where pre-stressed concrete is used in building construction.

T.Y. Lin tried to combine elegance and strength in his designs. He was saddened that the aestheticism of building was lost on most engineers. During the Cold War, he proposed a bridge to connect Alaska and Siberia over the Bering Strait as a symbolic demonstration of science's constructive, rather than destructive, capability. The idea was not taken up. Lin helped with the design of the San Mateo Bridge in California's Bay Area. He proposed redevelopment of Pudong, an island off the coast of Shanghai. In 1989, he

suggested that the land be leased in Pudong to pay for bridges to link the island to Shanghai. Today, Pudong is one of the most developed areas in all of China.

**External Links:**

[http://www.berkeley.edu/news/media/releases/2003/11/18\\_lin.shtml](http://www.berkeley.edu/news/media/releases/2003/11/18_lin.shtml)