

Asian American Engineer of the Year Award

Dr. YC Yiu

Lockheed Martin Fellow
Lockheed Martin Space Systems Company



Dr. Yiu shapes the future of satellite technology and space exploration through his many contributions to structural dynamics.

Success in aerospace is all about designing complex systems that function flawlessly in extreme environments. As a recognized expert in shock, vibration, and spacecraft dynamics, Dr. YC Yiu, a Fellow at Lockheed Martin, has contributed to the success of many critical space systems. These projects range from the International Space Station to Lunar Prospector, from classified national security projects to innovative commercial and military communications satellites such as Iridium and Milstar.

YC's path to technical mastery began at the U.C. Berkeley, where he earned a bachelor's degree in Civil Engineering, followed by master's and doctor's degrees in Structural Engineering. Joining Lockheed Martin in 1986, he quickly distinguished himself as a technical leader, contributing to the solution of numerous critical vibration problems encountered both on the ground and in orbit. In the early 90s, he led an Integrated Processes Team (IPT) for Passive Damping of the Space Integrated Controls Experiment and also served as Deputy Program Manager for the Damping and Metal Matrix for Precision Structures research contract.

Starting in 1997, YC served as the Manager of Structural Dynamics and Vibroacoustics in the company's Space Flight Sciences Organization, and in 1999, he was appointed Principal Investigator of Integrated Analysis of Advanced Optical Systems. Among his achievements was development of an advanced structural modeling method for on-orbit performance of optical systems.

In the 2000s, he has continued to serve as IPT Lead for a number of projects at the forefront of structural dynamics modeling. In addition to his wide technical impact, Dr. Yiu is known for his ability to mentor young engineers. He was selected to develop and teach a graduate-level course, Advanced Design and Engineering of Space Systems, at Stanford University as a guest professor. YC is an Associate Fellow in the American Institute of Aeronautics and Astronautics (AIAA) and a member of the AIAA Structural Dynamics Technical Committee. In these roles, he chairs technical sessions at the AIAA Structures, Structural Dynamics, and Materials Conference and reviews numerous conference and journal papers.

In 2005, Dr. Yiu was elected a Lockheed Martin Fellow, and was re-elected into this elite group in 2008 and 2011. Today, he continues to solve technical problems in dynamics, shock, and vibration across the company's many lines of business and serve as member of independent review teams/boards. One of YC's customers attests that his "sustained record of exceptional technical achievement is one of the strongest that I have seen in my 16 years of government civil service."

