

香港中學生徵文比賽——一個我敬佩的香港人

Ho Yik Shing

(The Y.W.C.A. Hioe Tjo Yoeng College)

Charles Kuen Kao - the one from Hong Kong whom I adore

I adore Professor Charles Kuen Kao very much. Kao studied in Hong Kong for his high schooling. In 1970, he joined the Chinese University of Hong Kong, was its first Professor and head of Department of Electronics. He was the former Vice-Chancellor of the Chinese University of Hong Kong and retired here too. In all he has lived in Hong Kong for over 30 years. So he is a Hong Kong believer. He has dedicated most of his life to the research on fiber-optic communications.

I think Kao is a very brilliant scientist because he developed the use of fiber optics in telecommunications in 1966, therefore he is known as the "Father of Fiber Optics", the "Godfather of Broadband" or the "Father of Fiber Optic Communications". He was awarded the 2009 Nobel Prize in Physics by the Royal Swedish Academy of Sciences for his groundbreaking achievements in the transmission of light in fibers for optical fiber communication. The Nobel Foundation has never given the prize for applied sciences before. His ideas revolutionize the world's communication and information technology and industry of today and usher in a new era of telecommunications. The optical fiber communication has brought the age of internet. Without optical fibers we would not have the internet, email, facebook, twitter, youtube...etc. Besides the Nobel Prize, he also received many awards including the Faraday Medal in 1989, the Alexander Graham Medal in 1985, the Marconi Medal in 1985, and many honorary degrees from universities and colleges worldwide.

Kao is extremely clever, persistent and very devoted to his work. When he first proposed that such glass fiber could be used for long-distance information transfer and high-speed network communication, the scholars and experts did not think his ideas would work and disbelieved them due to the early experimental trials and problems when dealing with optics. But Kao still pursued in his scientific research works and experiments.

Kao is a serious gentleman-scholar yet innovative and inspiring. He joined the Chinese University of Hong Kong in 1970 and set up the Department of Electronics, later became the Department of Electronic Engineering. He built up both

undergraduate and graduate study programs of electronics. The School of Education and other new research institutes were established. In 1985, the Chinese University awarded the degree of Doctor of Science honoris causa to Kao in recognition of his leadership of scientific research at the University and the enhancement of its international standing. He worked as Vice-Chancellor at the Chinese University from 1987 to 1996. He set up a flexible credit system and revamped the undergraduate curriculum. He established the Faculty of Engineering and the Faculty of Education. The University nearly doubled in size during those few years. He raised the quality of the education and international reputation in teaching as well as research of the Chinese University as the world's local university by establishing research institutes, launching interdisciplinary research initiatives, and setting up contacts with many leading institutions in the U.S.A. and the U.K as well as industry. He also took part in setting up an Internet exchange in Hong Kong and in establishing the Hong Kong Science Park.

Kao is very generous and kind-hearted for he donated to Yale University, and established the Charles Kao Fund Research Grants to support Yale's studies, research and projects in Asia. He also donated to the Chinese University all of the 17 medals awarded to him for his scientific and technological achievements. In addition, he and his wife, Gwen Kao founded the Charles K. Kao Foundation for Alzheimer's Disease Limited in 2010 which is a registered non-profit making charity organization to raise the public awareness of Alzheimer's disease, educate the general public on brain healthcare strategies, enhance care and support to Alzheimer's patients, their families and caregivers.