



# THE CHINESE UNIVERSITY OF HONG KONG

Seminar jointly presented by  
Faculty of Engineering and  
Department of Information Engineering

## Renewable Energy Innovation for Sustainable Living

by

**Professor Joseph Y. Hui**

**ISS Chair Professor of Electrical, Computer, and Energy Engineering  
Arizona State University  
U.S.A.**

**Date : 13 December, 2013 (Friday)**

**Time : 2:30pm - 3:30pm**

**Venue: Room 1009, William M.W. Mong Engineering Building  
The Chinese University of Hong Kong**

### Abstract

Global climate change and energy shortage require that we change substantial how we generate, store, use, and conserve energy. This lecture is the Last Lecture I gave at Arizona State University concerning how we can innovate new technologies and change dramatically how we may live comfortably without causing environmental damage.

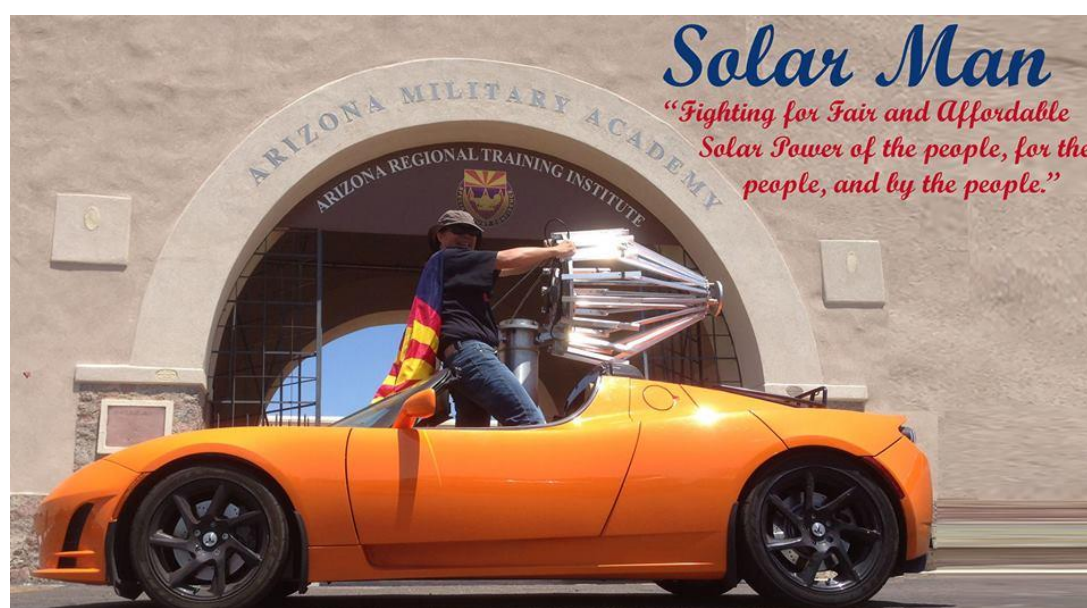
I propose the dual use of solar power where sunshine is plentiful and natural gas in cold climate. For this purpose, I have invented new forms of photovoltaic applications, solar thermal generation and use of energy, a revolutionary small gas turbine, new form of absorption chilling, and an electromotive method for water purification. Models of these inventions will be shown.

I will also describe my journey of such inventions, illustrating how we can creatively solve global challenges. I propose a WE FIT scale of human comfort level, representing respectively our need for Water, Environment, Food, Information, and Transportation, and how my inventions may help people all over the world live a comfortable and sustainable life style.

### Biography

Dr Joseph Hui received his BS, MS, and PhD from MIT in 1981, 1981, and 1983. He has worked for Bell Labs, Bellcore, Columbia University, Rutgers University, the Chinese University of Hong Kong, and now Arizona State University.

He is a Fellow of IEEE, an NSF Presidential Young Investigator, and have received prize paper and other awards. His areas of research include information theory, wireless communications, cloud computing, and recently aspects of energy generation, use, and storage. He is president and CEO of Monarch Power Corp where he develops and commercializes his many patents on energy research. He is retiring from ASU in June 2014 to devote full time to help save the world from global climate changes, water and power shortages, and the promotion of science education and electric transportation. He appears also as Solar Man shown below, driving his orange Tesla Roadster with the solar Lotus Mobile on top.



\*\*\* ALL ARE WELCOME \*\*\*