



THE CHINESE UNIVERSITY OF HONG KONG

Department of Information Engineering

Seminar

Energy Systems for Electric Vehicles

by

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Date : 24 May, 2010 (Mon.)
Time : 11:00am – 12:00noon
Venue : Room 833, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

Living in Arizona where it is sunny and hot 330 days of the year, I have adopted a life style based on renewable energy, such as using solar power and electric vehicles. Hence I have a new found research interests in solar power, new energy storage methods, and electric vehicles.

I shall talk about my solar and EV experience, and describe a recent project in building a "Solar Power Vending Station" based on a revolutionary charger made by ABM for which its advantages will be described.. Next I'll describe a solar electric car concept which can be entirely carbon free (at least in Arizona).

The second half of the talk shall examine various energy sources for EV, including various Lithium battery technologies, a rechargeable Zinc Oxide fuel cell, an ultra-capacitor, and a recent invention called the proton capacitor.

生活在美国亚利桑那州, 每年 330 天晴朗及炎热, 我接纳了使用太阳能和电动车辆的生活方式, 以及了解再生能源的市场和发展趋势, 引起我对太阳能, 电动汽车和新能源贮存方法的研究兴趣。

我先谈谈我对太阳能和电动汽车的个人经验, 并描述最近的一个项目: 采用一个革命性的充电器, 建设“太阳能自动贩卖站”。我将描述充电器的优点。接下来, 我将描述一个太阳能电动车的概念, 至少在美国亚利桑那州, 可以实现无碳排放运输。

讲座的下半, 重点定位比较各种电动汽车能源, 例如各种锂电池, 锌氧燃料电池, 超电容器, 以及最新发明的质子电容器。

Biography

Joseph Y Hui is ISS Chair Professor of Electrical, Computer and Energy Engineering at Arizona State University since 1999. He obtained his BS, MS, and PhD degrees at MIT before joining Bellcore in 1983. He has held various teaching and visiting positions at Rutgers University, Columbia University, the Chinese University of Hong Kong, and Arizona State University.

He is an IEEE Fellow recognized for his contributions in multiple access communications and broadband switching. He received the William Bennet Prize paper award for the paper "Multiple Accessing for the Collision Channel without Feedback" and wrote the first textbook on Broadband Switching. He is also HKIE Fellow, Henry Rutgers Research Fellow, and NSF Presidential Young Investigator. His broad research interest includes information and communication theory, switching and teletraffic analysis, cloud computing and virtualization, as well as electric vehicles and energy management systems.

He has founded many companies, including IXTech and IXSoft while on the faculty of the Chinese University of Hong Kong. Since returning to the US in 1999, he has founded Viva Communications and 4Blox. Since 2007, he has founded Nuon Labs, with 4 subsidiaries Virtuon, Etherion, Pcion, and a recently acquired Advanced Battery Management (ABM).

**** ALL ARE WELCOME ****

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